The Builder.

VOL. LVIII. No. 2472. SATURDAY, JUNE 21, 1890.

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"Historic Towns:" Carlisle and Winchester.

CURIOUSLY contrasted in the nature of their history and their interest are the two towns treated of in the latest volumes of the "Historic Towns" series.* To the modern public Carlisle is a great railroad junction, the name of which has been rather painfully familiar in newspapers lately; while Winchester, considered from the same point of view, is little more than a roadside station. The ordinary traveller who passes it is little aware that the town whose name is painted up at the modest station was in the early days of English history the great centre of English political and ecclesiastical life and strife (the two things were nearly synonymous then), not second to London, even at times and in some lights more important than the London of those early days. But this is not all. In the history of architecture and archæology Winchester is as interesting as in her political history, and whilst the author of the book on Carlisle expressly points out that he has treated Carlisle in reference to national history and not to local detail (probably conscious of the insufficient interest of the town in itself), the author of "Winchester," although dealing with a town of far greater ancient importance politically than Carlisle ever was, has so much of interest to relate in regard to the town itself that there is no excuse for going outside the subject; the archæology of Winchester itself is of sufficient interest, independent of the great interests which cluster round it.

Considering the far inferior interest of Carlisle, we may be content with a brief reference to Mr. Creighton's well-written but rather discursive little book. Carlisle (Caerluel) was always essentially a border city, as it is now a border railway station; and in ruder times led the troubled life naturally incidental to a border city; and the epithet "merrie Carlisle," which Scott adopted from an older source, probably referred to the character of a city where there was always some fighting going on or likely to go on. The architectural importance of Carlisle may be said to be centred in the east window of the cathedral, a world-renowned specimen of tracery which has redeemed the building from obscurity. Mr. Creighton mentions its foundation by Norman Walter in 1083, "the same year in which Bishop William of St. Carilef laid the foundations of the great minster at Durham, which the church of Carlisle greatly resembled in design. When it was dedicated the choir, and perhaps the transepts had been built; the building of the nave was slowly carried on as the state of funds allowed." The author thinks that it was this financial operation which led, in this case, to the church being a double one, the choir and transepts belonging to the canons, the nave forming the parish church; the resources of the town not being equal to two separate churches on a large scale. Speaking of the rebuilding of the choir in the thirteenth and fourteenth centuries, the author pays a tribute, not undeserved, to the energy and ambition of the builders who, in spite of the continual misfortunes from fire and violence which befell their building, were determined at least to aim high, and produced a choir which, if fully completed according to its original design, would have been worthy to form a part of a cathedral of the first class, and the famed east window at all events is a continual memorial of the artistic feeling and refinement of the worthy, whoever he was, who set out its beautiful tracery lines. Had the whole cathedral been completed and kept up with the same beauty of detail, Carlisle would have been one of the architectural shrines of the country; but times were too turbulent for this, and the cathedral remains an unhappy monument of the fact.

No one could have been a better or more suitable author for a short history of Winchester than the Dean of its Cathedral, who combines archæological taste and knowledge of the place and neighbourhood with a good literary style. His book is a model of its kind, easily written, readable, yet full of information. Some gift of imagination and picturesque description is needed to take the reader back to the distant epoch when the future site of Winchester first presented itself to the Roman invader; for one need not of course remind most readers that the "chester" termination is the *castra*, the first part of the name being apparently a double corruption, first of "Gwent" (ancient British) into "Venta"—"Venta Castra," subsequently Germanised as "Vintanceaster," whence the transition to the modern name is obvious. Like most historians of the modern school, Dean Kitchin endeavours to picture the landscape and surroundings of the city as affecting the original choice of the site. The south coast in early times we can easily imagine as all wooded, the chief break in the line of forest being caused by Southampton Water. To explore that was a natural impulse almost; a partial lead up into the country. "Even now, if any one lands at the head of the tidal waters just below Bishopstoke, and looks northwards from a rising ground, he will see well-wooded slopes stretching away to right and left, while at the head, apparently, of the valley just beyond where Winchester lies hidden in the lower ground, he will discern an open breadth of country, which seems to invite him onwards into the heart of England, and this, we may well believe, is just what the Roman saw," and fixed his camp at the British hut village. The Dean traces the line of the present High-street as that of the usual central road across the rectangle of the Roman camp. Of all this there is no historic record beyond what the pick and mattock might supply perhaps still, and what fancy may conjecture. As the author says with a pleasing touch of rhetoric, "with the first breath of Christ's religion, like silent strings touched by the wind, history begins to speak in low mysterious tones," some of which echo down to the present time in a very practical manner, for in the seventh century the first endowment of the church in Wessex was granted to the Winchester monks attached to the Saxon cathedral which was the forerunner of the Norman one, in the shape of a grant of land for some distance round the city, given for the building of the church; "and some of these estates remain to the present day, after a lapse of nigh twelve centuries and a half, in the hands of the Dean and Chapter of Winchester"; a curious example of that slow-changing and conservative state of existence which characterises the cathedral cities of England, in such strange contrast with the quickly changing life of modern cities, and which makes them seem like ancient bridges stretching backward across the stream of time, connecting us with the far-away past of our country.

Perhaps the genuine career of Winchester may be said to date from the great King Alfred, who held his court there as King of

*"Historic Towns": Edited by E. A. Freeman and A. W. Hunt. "Carlisle"; by M. Creighton, M.A., D.C.L., LL.D.: "Winchester," by G. W. Kitchin, D.D., F.S.A.; Dean of Winchester. London: Longmans, Green, & Co. 1889.

Wessex, who made the first existing chronicle of the English people, the first-known survey, ("Liber de Winton") in the country, and founded the "new minster," which occupied the site that is now the northern or north-eastern portion of the present cathedral precinct, but of which the very memory is now only preserved in some of the names, "Abbey-passage," &c., which still cling around the ancient site. For some centuries, however, there was the spectacle presented of two churches of cathedral type and scale, close beside each other in the same city.

Of course at that time the other cathedral, on the site of the present one, was of a much more simple character than that which we now know so well, though it appears to have been an important and imposing building for its early date. It was the work of Bishop Æthelwold at the end of the tenth century, and is described by the enthusiastic eye-witness of its erection, Wulfstan, as of so many chapels, such intricate passages, such numerous columns, that a man might easily be lost in it; "it was crowned also with a mighty tower, with pinnacles and balls of burnished gold, and a weathercock which caught the morning sun, and filled the traveller coming down the hill into the city with amazement." There is something delightfully characteristic of Saxon times in this; one can fancy the cathedral like a kind of child's toy building on a great scale, or like some of those naïve pictures of Mediæval architecture, towers with bells swinging out at the windows, drawn in Gustave Doré's illustrations to Rabelais.

All this was to pass away when the strong hand of the Norman conqueror was laid upon the land. William made Winchester his headquarters, "for so long as the king over England was also Duke of Normandy, Winchester lay handiest for Rouen. It was not till this connexion was shaken that the importance of the Southern capital began to wane." William found a congenial spirit in Bishop Walkelin, who in 1079 began to build the new cathedral. The Dean's comment on the architectural influence of the Norman rule is so picturesquely put that we may quote it:—

"The new lords of the land, strong and resolute, seem to have considered the cathedral, abbey, and parish churches built in the native style to be deficient in size and dignity; and therefore many older buildings of note were swept away, and new minsters rose to express in stone the dominant ideas of the new masters. These massive churches were eloquent of the constructive boldness of their builders; they became centres of Roman rather than English worship, and belonged rather to the larger and more general church system attached to the revived Papacy, than to the older national system; garrisoned by friendly monks, each church became a Norman fastness; the bishop, high-seated at the easternmost point of the apse, looked down on the worshippers from behind the altar, and seemed to embody the highest claims of the Mediæval Church. In Winchester Cathedral the altar above and the sacred well in the crypt below, the one directly over the other, in the exact centre point of the circular apse, were the significant centres of religious worship. No wonder that the English disliked these characteristic apses, symbols of Norman dominance, and, when they had the power, replaced them by a square east end. The apse of Winchester was soon swept away when Bishop Godfrey Lucy undertook to refashion the church, before the end of the twelfth century, in the new style, which is now called First Pointed or Early English."

The Saxon Cathedral was not demolished till the new choir was completed in 1093, when the monks are related to have taken St. Swithin's shrine from the old church to the new. The Dean suggests that Walkelin perhaps built his eastern apse close to the west door of the old cathedral, and then pulled down the latter and built the new Lady Chapel on the site of it; and thus the very ancient-looking work in the crypt beneath is actually part of the oldest Christian building of these parts. The rude style of the work in parts of the crypt certainly warrants this opinion, which has been often before expressed.

Another curious survival of ancient practice is mentioned in connexion with the chapel of St. Laurence, the palace chapel of the Conqueror's day, to which to this day each bishop goes before his installation in the Cathedral. Originally this was to pay homage to the king in his palace, which was a necessary ceremony before taking possession of the see; and the practice is still kept up though the real meaning for it has been for centuries in abeyance.

Winchester was omitted from the Domesday Survey, probably because it was to be treated on a different principle, and the author's summary of the results of the survey of the city made under Henry I. collects in a short space a good deal of curious information. The general impression conveyed, he tells us, is that the houses were few and the population only from six to eight thousand. We may direct the reader's attention also to the chapter on the days of Henry of Blois (1129-1171), whom the Dean calls perhaps the greatest of Winchester bishops, certainly a strong though turbulent and tyrannical character, who on his death bed denounced Henry II., who came to see the dying man, "durissime et dirissime" for his share in Becket's death. It is interesting to note that, like Pope Julius in later days, he combined with violence and wilfulness of temper a great love of art, and was a collector of silver work and jewels and carvings, for which he built a treasure house in the cathedral, which in its peculiarities of style shows some reminiscence probably of his foreign travel. Not long after him came the days of Bishop Lucy, and of the removal of Walkelin's Lady Chapel, and all the excitement of the new building in the new style. He, it is noted, established the first English Church Building Society, "a confraternity for the repair of the church, to last five years." Like many other mediæval builders, as well as some modern ones, they did not understand the subject of foundations, and part of their work has settled far out of the perpendicular. The Dean's remarks as to the special object of the new building, as far as plan was concerned, are worth citation; we say advisedly "as far as plan was concerned," for no doubt architectural enthusiasm for the new style was the most urgent influence in the work; people removed and rebuilt things then because they thought they had something better in their mind, and could not help doing it; but the description of the motive for the arrangement of plan is of considerable interest:—

"The object of Bishop Lucy's enlarged church, which lay to the eastward of the ancient building with a new Lady Chapel, is plain; it was intended to provide space for the crowds of pilgrims who flocked to St. Swithun's shrine. That shrine was placed in the centre of this part of the church (between the present chantries of Waynflete and Beaufort); and the monks, though willing enough to receive their offerings, turned their faces away from the persons of the dirty unwholesome crowd, and excluded them carefully from the main church. They made them enter by a Norman doorway in the north transept, which opened into the churchyard, away from the conventual buildings; after they had paid their offerings or fees in that transept, they visited the shrine, and were stopped on the south side by those interesting gates of wrought iron, still preserved in the Cathedral, and which are probably the oldest specimen of English wrought iron-work. And so this part of the building became practically a second church under the same roof, with nave, aisles, and Lady Chapel all its own."

Of the more popularly celebrated Winchester bishop, Wykeham, the Dean speaks with due appreciation but without enthusiasm, as one who "left to us a somewhat dull and monotonous architectural style, capable however of very dignified effects, and a sound type of traditional education: . . . . while there is no genius in him or originality, he is the English churchman at his best." To speak of Wykeham as the personal inventor of the Perpendicular style is surely going too far; styles were not personal inventions, even less so then than now; and on the other hand the scheme which he apparently originated and carried out, or at least superintended, for transforming the Norman nave of his Cathedral into the new style of his day, is certainly marked by that kind of boldness in conception and fearlessness in execution which is a special characteristic of genius.

Among the later historical associations which cluster round Winchester none certainly is more memorable than that first meeting of Philip II. and Mary, after the long ride of the King and his Spanish followers in the wind and rain from Southampton, told with such picturesque force by Froude; but this belongs to the realm of history proper, unconnected with the architectural development of the city, with which we are chiefly concerned. Some account is given in a later chapter of the book as to the comparatively modern transformations of Winchester; the general repair of the Cathedral Close in 1661, and the insanitary state of the city about the same period. Just before the Great Plague year various sanitary regulations of a primitive kind were passed, but even these were not attended to; drainage, as now understood, was unknown, and the houses, many of them built of mud and thatched with straw, were not of a character to make the best of bad sanitation. Accordingly, the plague had its fling at Winchester. Another matter about which we believe very little is known, is the intention of Charles II., who frequented Winchester a good deal, to have a grand approach to the Cathedral made. The Dean tells us that in the Cathedral archives there exist two documents bearing on this project, one signed by Christopher Wren and the other by Rochester, forbidding the Dean and Chapter to lease any of their land to the south of the town until the King's pleasure was known. It would have been highly interesting to see what Wren would have made of this opportunity of laying out an approach to the Cathedral in his own way.

In conclusion we may say that this volume is by far the best, to our thinking, of all the "Historic Towns" series. No doubt the author has been exceptionally fortunate in his subject; but his literary ability and picturesqueness of style have enabled him to turn his materials to the best account in producing a short history which is not only full of information, but as interesting reading as a novel.

THE GERMAN NATIONAL MONUMENT QUESTION.

WE have more than once referred to the discussions in Berlin as to the proposed national monument to the Emperor William I., and the form in which it should be embodied; and as the Government seem now about to take the matter in hand, it may be convenient to sum up the position at the present moment in regard to a matter which is of some importance in the art world, and which has been the subject of some very acrimonious criticism in the artistic circles of the German capital.

In accordance with a bill passed in December, 1888, the sum of 5,000*l.* was placed at the disposal of the Government for the purpose of obtaining a suitable design for a monument to the Emperer William I., by means of competition.

For the purpose of facilitating the choice of a site for the monument, as well as for the purpose of obtaining ideas as to what kind of monument might be deemed suitable, a preliminary competition was opened in March, 1889, and 1,600*l.* of the 5,000*l.* offered in prizes.

This competition was decided in October of the same year. Of the 147 designs sent in, the two classed first were by architects, whilst the four classed second bore the names of sculptors. By far the majority of the designs showed extensive schemes to be planned on sites outside the town proper (on the Königsplatz, Siegesalle, &c.); of those still remaining the larger number was destined for the Pariser Platz, just inside the old Brandenburg Gate, whilst the rest were either to find room on the Schlossfreiheit (in front of the Imperial Palace), on the Castle Bridge, or on the finely-situated Opera Place, at the corner of which

the historical window of the deceased monarch's residence is to be found. The jury were, however, unable to come to a unanimous conclusion as to the site to be preferred, and merely noted in their statement that on putting this question to the vote, nine of the members voted for a site outside the gate, and that the votes of the remaining five of their number were divided between the Opera Place and Schlossfreiheit sites inside the town.

Since the date of this statement, which otherwise simply treated of the various designs, in order of merit, without in any way recommending any special idea, nothing definite could be reported for a long time, although it was an open secret that the young Emperor had been keeping the subject before him, and had even gone so far as to consult his favourite sculptor, Reinhold Begas, together with a court architect of indifferent merit, as to their ideas, at the same time stating his view of the question.

Then came the distinct news that Professor Begas had been working out a design in accordance with the ideas of his patron; and now during the last month the subject has at last, as it seems, been taken firmly in hand.

During a sitting of the "Kronrath," under the presidency of the Emperor, the subject was discussed; and, some three weeks ago, we were able to state that the "Bundesrath" would be asked to come to certain decisions* very different to what the public at large would be in favour of; and now, after these decisions have really been requested from this body, the "Reichstag" has last week received an official notification that they would be asked to come to similar conclusions.

As before observed, we have every reason to believe that such requests of the Government will be granted, as it is well known that no other idea would have much chance of being approved of by the Emperor, and we do not even believe that the decisions will require debates of noticeable length, now that the Government has at the same time notified their opinion that they consider that the monument should in the first place be a monumental representation of the monarch himself, as a person; and that to go farther than this, and to erect an extensive architectural monument on which also those persons should be memorialised who have played important parts during the foundation of the new German Empire, would be likely to lessen the predominance of the Emperor himself in the design, or, if this was not to be the case, would require that his figure should be treated in a spirit of self-assertion quite at variance with his simple ideas and manners.

Taking their own views into consideration, *i.e.*, that no extensive architectural design would be advisable, and that an equestrian portrait statue only would be the more suitable style of monument to the deceased monarch, the Government has naturally not given those sites outside the Brandenburg Gate any more thought, but has recommended instead, for several reasons (among which that of economy appears to be predominant), the Schlossfreiheit, or rather the new extension thereof, now being acquired by means of a lottery.

In itself the idea of commemorating the old Emperor by a simple equestrian statue is suitable enough; but it is another matter when this is regarded as the national monument, the result of a national subscription, especially as every province and every important town has its own scheme for a monument to the founder of the modern German empire. The city of Berlin might very well itself dedicate an equestrian statute to the memory of the Emperor, as the monument of the capital city, and place it on this very easily acquired site in front of the present Emperor's residence; but a monument which is to stand as the offering of the German nation seems hardly to be adequately represented by a single portrait statue. And it would seem only fitting that a national monument to the founder of the empire should include some memorial of those who were most prominent and distinguished among his servants, even if it did lead to the introduction in a prominent position of the figures of the Emperor Frederick and of Prince Bismarck, who are at present very unpopular in high places.

The objection made to any larger scheme than the single equestrian statue seems, indeed, to be the result either of jealousy, or of a desire to do the thing cheaply, or of both feelings combined. But in this case why was there any competition opened at all, to delude artists with false hopes? It can scarcely be pretended that the ideas now promulgated on the subject arose in any way out of the first competition; and why has the time and labour of artists been so lavishly played with for no purpose? It is to be hoped the German Government will in future be less reckless in opening competitions which are to have no result, and that the present ill-managed affair, and the annoyance and criticism it has raised, will serve as a warning against similar mistakes in the future.

While sympathising with the Berlin architects and artists in their disappointment, and while concurring in their idea that a monument to an Emperor by national subscription should be something on a large scale,—something that may seem an adequate expression of the recognition and loyalty of a great nation, and that a mere portrait statue can hardly be so considered; we must admit that it is rather a difficult matter to decide what the nature of such a monument should be. The result of the competition for the Victor Emmanuel Monument was not encouraging in regard to the idea of built-up monuments, squares or semicircles of architecture surrounding a central statue or group. To justify a work of that kind, it is necessary that every portion of it should possess sculptural or other detail of special interest and significance; a mere piece of built-up ornamental architecture, like that which many of the Victor Emanuel competitors proposed, is apt to impress one with an idea of its uselessness and baldness of expression in comparison with what has been expended on it. The choice seems to lie between a great group of sculpture, such as M. Dalou has executed to commemorate the French Republic, or an architectural erection serving as a framework for sculpture or a *point d'appui* for sculptural groups. The monument to Gambetta at the Tuileries is not a bad type of this latter kind of monument, in which the architectural element is exceedingly simple, and merely serves as a centre point for the sculpture to cluster round and be relieved against. If it be desired to develop the architectural element rather more, it may be said that in general idea the Albert Memorial in this country is a good example, although open to much criticism in regard to points of detail. But something of this kind, an architectural shrine for the principal figure, with bas-reliefs and supporting groups of sculpture in which events and subordinate actors can be represented, so as to compose into a united whole, might be recommended to our German friends as the best type for the solution of the problem, if they are still to have any chance of engaging in it.

* See *Builder*, May 24, 1890.

THE WORKING OF THE CONCILIATION CLAUSES OF THE RAILWAY AND CANAL TRAFFIC ACT.

A REPORT by the Board of Trade upon the above subject has recently been laid before Parliament, in accordance with the provisions of the Act, in which the cases dealt with are set forth in more or less detail, accompanied by some valuable observations by the Department. It will be remembered that this mode of procedure, which is entirely new to English practice, was introduced into some of the earlier Bills, but was allowed to drop. In 1887 it was abandoned while the measure was in the House of Lords, on the ground that no new tribunal for dealing with railway questions was necessary: but it was again inserted in the Bill of 1888 (which became law), and the report under consideration gives a good idea as to how far the experiment has proved successful.

The Board remark that the clause "imposes upon the Department the duty of endeavouring to arrange the differences between traders and railway companies, which, in some instances, might be brought before the law courts, but which the Legislature appear to consider might be usefully dealt with by the friendly action of the Department." That the Legislature were justified in anticipating a beneficial result may be considered proved by the fact that out of forty-nine complaints which have been made under the section, twelve have been settled to the satisfaction of the complainants; while in nineteen other cases explanations have been made through the medium of the Board of Trade, and the complainants have taken no further action. It is not unreasonable to assume (as the Report observes) that in some, at least, of these latter cases the explanations obtained have been considered satisfactory.

Of course, the Department had to consider, in the first place, whether they could properly deal with the various matters submitted to them. They were placed in a rather peculiar position, being authorised, "if they think there is reasonable ground for complaint, to call upon the railway company for an explanation, and endeavour to settle amicably the differences between the complainant and the company." Although the Board of Trade have no power to enforce their decisions, there could be no doubt that any expression of opinion on their part would have considerable weight as coming from a State Department; so that it was necessary for them to carefully avoid taking up matters which could only be properly determined by legal action. The Report explains that they took the opinion of the law officers of the Crown as to the extent of their jurisdiction, and that they were advised to act upon a wide interpretation of the section, until experience had shown that interference in any particular class of cases was useless or injurious. This rule the Department seem to have adopted, as they have entertained most of the applications made, while cases occasionally arose which they declined to proceed with. For example, in the case of a complaint of an increased rate charged by the Brecon and Merthyr Railway, the company contended that the increase was due to the discontinuance of a rebate in accordance with another section of the Act, and that its further allowance would be illegal. This case, the Board decided, was one which should be submitted to the Railway Commissioners. Another complaint by the Liverpool Chamber of Commerce and others was based upon the relative severity of the rates from Liverpool to Birmingham and district, compared with those between Cardiff and the Birmingham district. The answers of the different railway companies interested opened up a wide field for inquiry,—such as the effect of water competition and various other circumstances,—and the Board wisely came to the conclusion that the complaint was too wide and complicated a problem for them to deal with.

In other cases their interposition was clearly beneficial, and was much appreciated. In an important colliery case, although no settlement could be arrived at, the Board arranged a meeting at which the question in dispute was discussed; subsequently receiving a letter in which the complainants expressed their indebtedness to the Board of Trade, and stated that it had been arranged to present a friendly case to the Railway Commissioners for their decision. It is not at all improbable that amicable discussions such as these, due to the friendly interposition of a neutral mediator, might not otherwise have been brought about at all. Several complaints of increased charges resulted in the old rates being reinstated, the explanation of the railway company in one of these cases being that the increase was due to a clerical error. An appli-

cation by a Glasgow manufacturer resulted in the reduction of a certain rate from 2*l.* 10s. to 1*l.* 10s. 10d. per ton, "with which," the Board are particular to add, "the complainant is satisfied."

At the same time the Report is not without cases terminating in a way calculated to "satisfy" the railway companies. On investigating one case they found that "there was no just ground for complaining of unreasonable or oppressive treatment on the part of the railway company, as the increased rate, which was reasonable in itself, was the ordinary rate charged in the district under similar circumstances, and was considerably below the company's maximum of charge." We may mention another case in which an interview was arranged, resulting in an offer on the part of the railway company to reduce a rate from 7s. 7d. to 6s. The complainants declined to accept this (because other disputed rates were not altered), upon which the Board stated that they considered the offer made a fair one, and that they could not consent to ask the company to reconsider the matter.

When the scheme was first proposed the railway companies regarded it with disfavour, not considering the Board of Trade competent to deal with the questions which would be submitted to them. A railway journal, under date June 21, 1888, remarked that the only method by which a system of conciliation could be successfully worked would be by the appointment of a number of railway men, thoroughly conversant with goods rates business, as assistants in the Board of Trade Department. It was further declared necessary for this body of assistants to be men who had not only been engaged in the ordinary goods rates departments of the railways, but who had also an all-round knowledge of railway freight business both of this country and also of the Continent and of America and the Colonies! Now it is evident that, although the Board have no doubt found it advisable to strengthen their railway department since the passing of the Act, the writer alluded to entertained a very exaggerated estimate of the duties imposed upon them by this section. This first report affords proof, we think, that as intermediaries,—which was all that the measure designed them to be,—they *have* been fairly successful; and we may safely assume that they have not found it necessary to call to their aid an array of experts possessing all the qualifications supposed to be so indispensable.

NOTES.

AS will be seen by our report of the meeting of the London County Council this week, the Building Act Committee have at length reported on the references made to them many months ago as to the appointment and tenure of office of District Surveyors. The report of the Committee was not reached until too late in the sitting for any consideration to be given to it; but inasmuch as, by its appearance on the *agenda*, it has become a public document, we print it this week for the information of our readers. The Committee do not see their way to the payment of District Surveyors by any other method than by fees, as at present; but by way of counterbalancing this negative conclusion they make the positive recommendation that future District Surveyors be appointed only on condition that they devote their whole time to the duties of their office. The Committee recommend that the Districts be re-arranged as opportunities offer, so that the average of the fees received may in no case amount to less than 500*l.* per annum. It is more than questionable, we think, whether, if these changes be adopted, men of capacity and integrity will be induced to become candidates for District Surveyorships. In the proposed conditions of candidature for such appointments, the Committee, curiously enough, make no mention of the fact that no one can become a candidate unless he pass the statutory examination and hold a certificate of competency issued by the Royal Institute of British Architects, the examining body for such purpose under the Metropolitan Building Act.

COMMITTEES who are concerned in organising competitions, and who appoint a professional assessor either to adjudicate or to guide them in adjudicating, should bear in mind that in the case of buildings of a special character and for a special technical purpose, it is utterly useless, and worse than useless, to appoint as assessor any architect who has not special knowledge and experience in regard to that particular class of building. We have known of cases (and one was mentioned to us recently) where an assessor has been appointed to adjudicate on plans for a technical building who had never had any experience in planning that type of building at all, his own rather moderate reputation having been made in connexion with works of quite a different class and requiring no special knowledge, and this too in a case where the competing architects were mostly specialists; which makes the matter worse. To choose a competition assessor on such a system, and act on his advice, is casting a slur on the competing architects, and putting them in a most unfair and derogatory position, the probable result being that the plans are selected without any real reference to their technical fitness, and the appointment of an assessor becomes a mere farce.

THE Corporation of Eastbourne are about to adopt a plan which we have long advocated,—viz., the granting of certificates to the proprietors of such lodging-houses as are certified as being in a proper sanitary state. For this purpose the staff of sanitary inspectors is to be enlarged. This plan will have, sooner or later, to be adopted by all watering-places, but none the less is the utmost praise due to the authorities of Eastbourne for appreciating its necessity and for carrying it into execution. But care must be taken that old certificates are not shown to visitors, and that the houses are periodically inspected. It is obvious that if a house gets into bad repair, and the owner possesses an original certificate, it would be easy to get the better of unsuspecting or careless visitors. Of course, the latter should be their own protectors; but none the less should care be taken that the system of inspection is kept continually perfect. One of the great dangers of a sea-side residence will then be removed.

THE jurors appointed to consider the competition designs for the project for a tower to overtop the Eiffel Tower have issued their report to the directors of the "Tower Company." They report that they have given very careful examination to every drawing, that the designs were of very varying merit, and although there were good points about many of them, they confess to being disappointed with the general result, and express regret that "there is no single design which we could recommend as it stands for execution." This we are at all events glad to hear. The design which they recommend for the first premium of 500 guineas, that by Messrs. Stewart, Maclaren, & Dunn, is the one we pointed out in our "Note" of May 3 as the best one in regard to design, with an entrance façade treated in a rather Oriental style; but they state that though many of the designs were at once eliminated as unsuitable, they did not arrive at the final award without repeated and prolonged consideration. The second premium of 250 guineas is awarded to Messrs. Webster & Haigh, of Liverpool. The Jurors are Mr. E. H. Carbutt (Chairman), Sir F. Bramwell, Sir B. Baker, Mr. E. J. Harland, Professor A. W. B. Kennedy, and Messrs. C. Liddell, J. F. Moulton, and Thomas Verity. We cannot help regretting to see the name of Sir Benjamin Baker connected with so foolish a business.

MORE than two years ago we suggested that some of the poros fragments of colossal snake-bodies found to the south of the Parthenon might possibly turn out to belong to Cecrops, the earliest of Athenian legendary kings; but hitherto the majority of the fragments have turned out to belong to the bodies of a Typhon and of Tritons. Our suggestion has, however, now been realised. Dr. Alfred Brückner, who has done so much for the restoration of these poros pediments, publishes in the last issue of the Athenian *Mittheilungen* his reconstruction of the last remaining fragments. The composition consists in the main of a figure of Herakles wrestling with a Triton, the Triton's tail filling the left-hand angle of the pediment; but on the right-hand angle is another snake-tailed figure quietly watching the contest. He, moreover, holds in one hand an unmistakable bird, which can scarcely be other than the eagle of Zeus. In fact, the famous struggle of Herakles is conceived of as taking place not in the Peloponnesus but in Attica itself, under the auspices of the old Athenian king. Very little of the figure remains, but the hand holding the bird is distinctly preserved. Up till now our earliest representation of Cecrops has been the well-known Berlin terra-cotta, where he watches the birth of Erichthonios. The newly-constructed pediment now takes the first place. The eagle in the hand of Cecrops in place of Zeus will raise some interesting questions for mythologists,—questions that cannot be discussed here. Dr. Brückner's long and able paper is devoted chiefly not to these side issues, but to a justification of his ingenious restoration.

IN reference to the Leipsic "Rathhaus" question mentioned on page 149 *ante*, we now hear that the municipal authorities have decided against their City Architect's design, in which was shown a clever solution of the problem of saving the old Town-hall, and the former Booksellers' Exchange close by, and the connection of these two archæological relics, with a well-planned extension, in which the committee-rooms and offices required were to be placed. The authorities, contrary to the advice and expectation of most competent judges, have come to the conclusion that a renovation of the old buildings, combined with an extension, would be inadvisable; that an entirely new building, containing the administrative offices, in combination with a new Town-hall, presentation rooms, &c., would be preferable, and that for the fulfilment of this idea a special committee should be elected for the purpose of working out a clear programme of requirements in such a building and framing a set of conditions for a competition for designs open to all architects residing in Germany. Whilst the official *Centralblatt der Bauverwaltung* expresses a hope that architects of repute will not send in designs for this competition, another architectural paper sarcastically remarks that many a long year will still elapse before the Leipsic citizen will see his new town hall. From our point of view, we hope that the number of designs sent in at the proposed competition may be 0, and that, as the City Architect has expressed his intention of not troubling himself about the matter any more, the authorities may some day find out that advice from competent persons should not be overlooked.

AT Hamburg there is a good deal of interest aroused at present in regard to the new scheme for extensive harbour works for Cuxhaven, to be situated on and off that piece of ground at the mouth of the Elbe which belongs to the old free Hanse Town farther up the river. The scheme, which has just been formally laid before the governing authorities of the town, and which has every chance of being soon approved of, shows that 380,000*l.* is the figure at the foot of the estimate, and that full three years' time will be necessary to do the work in. These new harbour works, when complete, besides being of great service as a place for

landing the passengers and mails of transatlantic steamers, unable to pass up the river at low water, will also be of considerable value as a harbour of refuge to such ships when waiting to pass through the North Sea-Baltic Canal, now in construction, and will have the great advantage of being "free," hence permitting the unloading and reloading of cargoes, and the temporary warehousing of them, without duty dues.

IN the *Semaine des Constructeurs* for June 14 there are published a series of small sections and plans illustrating the proposed extension of the Sceaux railway inward into Paris, by means of what is practically an underground railway with a terminus near the Luxembourg Museum. Those who have experienced the difficulty and loss of time in being conveyed to the present terminus of the Sceaux railway, which forms a kind of *ultima Thule* on the outskirts of Paris, will appreciate the gain to the public from this proposed construction.

WE have had an opportunity of seeing a model of what is claimed to be an "improved system" of road-paving, invented and patented by Mr. Frederick G. Helmore, and which forms the subject of Specification No. 12,011 of 1889. Briefly described, the method proposed by the patentee consists in the provision of what he calls "sectional casements," or shallow trays, as we may call them, measuring at their maximum (say) 20 ft. or 25 ft. long by 10 ft. broad; or they could be made of any other smaller size, so that one, two, or more of them would cover the width of the roadway of a street. These "sectional casements" the patentee proposes to make of malleable iron, steel, or other material (including wood). They are provided with flanges at the edges, which enable the sections to be bolted together, and which also serve, in conjunction with a central raised rib, to enable the wood or other paving-blocks to be keyed together. The paving-blocks rest directly on the iron or other surface which forms the bottom of the "sectional casement," which surface it is proposed to groove or furrow, so as to carry off into side-channels any liquid passing down through the joints of the wood blocks. In the case of a street only 20 ft. or 25 ft. wide as to its roadway, one of these "sectional casements" would cover the whole roadway. Each section is cambered, so as to give the roadway a proper amount of fall from its crown to the sides. The advantages claimed by the patentee are (1) that these "sectional casements" could be made at the factory, and filled in with wood blocks or other paving material before being brought to the street where they are wanted; (2) that they would require no bed of concrete under them, only bearing or foundation slips at each side (and at an intermediate point or points where more than one "sectional casement" is required to cover the road); and (3) that roads could be repaved very expeditiously with this system, drains, gas-pipes, &c., being readily got at by lifting up one or two of the "sectional casements" at a time. The inventor claims that his system would be nearly as economical in cost as the present systems, the cost saved in concrete going towards the cost of the iron-work. We confess that even if the cost of the inventor's system would compare with those of the present systems, which we very much doubt, there seem to us to be other practical difficulties which it would not be easy to overcome. In the first place, it would be very difficult to adjust the proposed "sectional casements" to the ever-varying and irregular widths of London streets. Secondly, the comparatively thin iron trays (for such, practically, are the so-called "sectional casements") would hardly, we should imagine, sustain heavy traffic without fracture, unless carefully and tightly packed underneath with earth between the bearing-points on the concrete. It is very easy for a plate-layer to pack a sleeper; but how is the space under an object 10 ft. in width to be effectually packed? While we are glad to find inventors working at the problem of improved street paving, in view of cleanliness, convenience, and safety, we cannot think that the invention under notice solves the problem. There is, however, something to be said for the idea of the inventor's patent, No. 20,945 (1889), for providing a ready means of quickly flushing the surfaces of roads from the crown. But this last-named patent is applicable to any kind of road, and the adoption of some such method would not only abolish the water-cart, but would prevent an incalculable amount of suffering to horses on wood and asphalte roadways at certain times.

MR. SPEAR'S report to the Local Government Board on an outbreak of enteric fever in the Pemberton Urban Sanitary district, Lancashire, turns in part on causes belonging to purely medical administration; but, as usual in such cases, there are defective conditions of sanitation favourable to the development of disease. Of the Pemberton and Orrell division it is observed:—

"The privy midden is in universal use in both districts. The structures, speaking generally, are large and deep, admitting of much accumulation of refuse, and, no doubt, of soakage of foul matters into the soil. They are often in very close proximity to dwellings, and when emptied, the refuse has first to be thrown on to the unpaved surface of the yards. This work of removal is provided for in the Pemberton district by the Authority; in Orrell it is left to owners and tenants, who are dependent upon the goodwill of neighbouring farmers. At New Town, Pemberton, nuisance has been caused by the deposit of the collected midden refuse on vacant land in close proximity to rows of houses."

Further conditions which require the attention of the sanitary authority are noted as follows:—

"The house accommodation of the district requires much attention. There are houses at Lamberhead-green that from dilapidation, dampness, want of proper ventilation, and from the sewage-sodden state of the surrounding surface are unfit for habitation. At New Town, a damp, low-lying locality, there is a great want of proper surface drainage and paving; the houses are largely of the "jerry" class, and often dilapidated and dirty; middens containing foul accumulations of refuse stand close by the kitchen doors and windows, and at one spot, close by a row of houses, a quantity of midden refuse was last summer deposited by the contractors in the employ of the authority. Speaking again of the sewer system, it is evident that much unpurified sewage finds its way into the Douglas. There is only one tank for the deposition of sludge before the sewage is applied to the land, and whenever the tank requires cleansing the sewage is passed by the overflow direct to the river."

WE understand that a deputation from the London United Building Trades' Committee is to wait upon the Royal Institute of British Architects on Monday next, at 4 p.m., to ask that body to place clauses in all contracts to prevent sub-letting, sub-contracting, and "sweating" in the building trades.

A PORTION of a lecture on "Electrical Phenomena in Nature," by Mr. Shelford Bidwell, published in *Nature* for June 12, contains an important suggestion in regard to the circumstances in which lightning-conductors are or are not efficient. The real value of a lightning-conductor, according to Mr. Bidwell's view, is that it establishes a silent and harmless discharge of electricity as fast as it is generated, in the case where a cloud charged with electricity is hovering over a building. According to this view it would seem that we are to consider that a kind of safe and easy path for electrical discharge is formed. But Mr. Bidwell maintains (and he illustrated the theory by experiments at the original lecture) that if a harmless uncharged cloud received suddenly an overflowing charge of electricity from a distant cloud, there is no certainty that the overflow discharge from it, instantaneously made and without a previous electrical condition of the air, would seek out the lightning-conductor. The electrical path would not have been formed in that case, and it is hopeless, we are told, to make the lightning-conductor so much the easiest path that all others are protected. This does not in our opinion alter the statistical fact that in the immense majority of cases lightning-conductors are an efficient protection, but it points out a certain state of things in which they will not be, and perhaps accounts for some of the injuries by lightning done to buildings supposed, according to the generally-received theory, to be fully protected.

IN the course of this week were sold by auction, on the premises, all the furniture, fittings, and effects, including the wings, scenery, &c., of the theatre, appertaining to Evans's Club, King-street, Covent-garden. The once favourite resort known as "Evans's" formed part of a hotel, at the north-western corner of the Market-square, of which W. C. Evans, of Covent Garden Theatre, was at one time lessee. He was succeeded here, in 1844, by John, or "Paddy," Green, who carried on the business for nearly thirty years. The large music-room, familiar, doubtless, to some of our older readers, was built in 1856, after the designs of Mr. Finch Hill,* on ground which had been the garden of Orford House. It has since been converted into a theatre, with an end and side galleries. We believe it is still a moot point whether "Evans's" or the "Cyder Cellars" is the original of that "Cave of Harmony" wherein, on one memorable evening, Colonel Newcome sang "Wapping Old Stairs" as he had learnt it from Incledon. The lease of the whole premises, held for an unexpired term of five years, at a ground rent of 200*l.* per annum, with an estimated rental value of 2,000*l.* a year, was withdrawn from the sale, as the reserved price was not reached.

ORFORD HOUSE is depicted in Hogarth's (reversed) plate of "Morning," and in Canaletto's large painting of Covent Garden Market, *circa* 1750.† It was built about 1716 for Edward, grandson of Francis, fourth Earl of Bedford, who for his victory over the French fleet under De Tourville off Cape La Hogue, 1692, was created Earl of Orford on May 7, 1697. Its lofty Dutch façade, since altered, was intended to resemble the stern of a man-of-war; and a large quantity of ships' timber was used in the building. The house, constructed of red brick, contains a fine main-staircase and a spacious suite of rooms upon the first-floor. The billiard-room, on the top-floor, is fitted up after the style of "Old London." Lord Orford died, *s.p.*, in 1727: his house passed to Lord Archer, and then to James West, P.R.S., the bibliographer. Two years after West's death, in 1772, it was opened as a private family hotel,—the first of its kind in the town,—by David Lowe. Of late years it has been occupied, in succession, by the Savage, Vauxhall, Falstaff, and other clubs. The site of this house alone has many interesting associations. For Lord Orford's mansion took the place of one that had been occupied in turn by such celebrities as Sir William Alexander of Menstrie, the Scots poet and statesman, friend of Henry, Prince of Wales; Tom Killigrew; Denzell, Lord Holles; Sir Harry Vane, the younger; Sir Kenelm Digby, who, according to Aubrey, had his laboratory there; and Nathaniel, Lord Crewe, Bishop of Durham, at whose door they were wont to lay the parish foundlings.

WE hear that the once-celebrated Tinted Venus, executed at Rome by Gibson, in 1852, for Mr. R. B. Preston, is to be put up to auction at Christie's on the 28th. It was the first piece of sculpture upon which the experiment of colouring has been tried in our time, and was one of the central attractions in the great Exhibition of 1862. The gold decoration was done by Castellani. It is a

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* *Teste* Mr. E. Walford, in his "Old and New London."

† *Vide* a "Note" in the *Builder*, July 7, 1888: sold at Christie's for 210*l.*, on June 30 of that year; from the Wimpole Collection.

beautiful work of its kind, with that superficial beauty of form and modelling which characterised the work of Gibson, who did not however succeed, in this and other examples, in proving the æsthetic superiority or fitness of tinted sculpture. The flesh tones are not, of course, realistic, only a slight warm tint suggestive of flesh tones is put over the nude portions of the figure. Gibson's reputation, in spite of his real ability, is one that has hardly stood the test of time; he was content to be little more than an echo of Greek sculpture, and his works, as far as the ideas and feeling embodied in them are concerned, are out of touch with the spirit of modern art. It will be curious to see what will be the result of the practical test of the auction-room, as to the appreciation in which Gibson's work is now held.

ARCHITECTURE AT THE ROYAL ACADEMY.—VII.

1,868. "Music": Mr. Percy E. H. Bacon. This is a rather large coloured drawing meant as a decorative design, but it looks too much like a modern lady on a drawing-room sofa with a harp, who has fixed a gold nimbus behind her head; the nimbus makes a rather irritating bright spot in the composition. The face is expressive and the whole well executed, but it has none of the idealism which the subject and the nature of the work demand.

1,869. "Northington Church, Hants, interior." Mr. T. G. Jackson. A view of the exterior of this church (also in the Academy collection,) is published in this number; the interior is a small pen-drawing the main object of which is to show the organ-case and the stalls. The former shows a screen with traceried panels below, there is a coved cornice to this, on part of which stands the upper part of the organ front, consisting of three square "towers" of pipes, finished with a group of pinnacles; the towers and the recesses between are decorated with rich tracery work partly concealing the pipes. The effect is very refined and artistic, but there are two practical mistakes here; the front part of the organ alone stands out from the arch, the bulk of it is closeted up far too much; and of the towers the largest is in the centre and the smaller ones at the sides, which is a contradiction of the real internal construction of an organ, in which the larger pipes are placed at each side and the smaller ones in the middle. We have often called attention to this, which is habitually overlooked in organ-case designs.

1,871. "South Chapel, Catholic Apostolic Church, Camberwell": Mr. John Belcher. Remarkable chiefly for the harmonious colour, which however does not easily lend itself to description; but there is some nice detail in the treatment of the mouldings and caps of the arcade.

1,875. "Campanile, Holy Trinity Church, Gosport": Sir A. W. Blomfield. Apparently a brick campanile, very simply treated, with a battered basement story and four stages, the upper one filled with a triplet of round-headed lights. Some individuality is given to it by the solid circular brick (?) spire which forms the finish.

1,876. "Crozier, silver-gilt, enamelled, and jewelled": Messrs. Saul & North. The colour effect must be taken on credit, as the drawing is only an outline one, but it indicates a true taste in the treatment of metal work. A kind of glory is formed round the outer curve of the staff (a form, by the way, to which some ecclesiological authorities deny the title of "crozier" at all) by light open work scrolls and leaves of metal, with a novel and rich effect.

1,878. "Cavendish College, Cambridge": Messrs. Giles, Gough, and Trollope. A small drawing of a Gothic building, apparently chapel or hall, with some effective treatment in the window design at the end, but too high to be properly seen.

1,880. "Zenobia, Design for a Mural Painting": Mr. P. H. Newman. There is some very clever work in this, in the separate figures, but the colour effect is too confused and multitudinous for good decorative effect. Zenobia and her children look like a modern lady and her family taking part in a tableau.

1,881. "Adelphi Bank, Castle-street, Liverpool": Mr. W. D. Caröe. Two coloured elevations and a small plan. Apparently a terra-cotta-faced building, Elizabethan in general feeling but very freely treated, and with a good deal of richness of detail. The upper windows are mullioned, the ground-story ones left plain to give light to the bank. This is a very good specimen of rich and picturesque street architecture, treated nevertheless in a style not out of keeping with a business building, and an appropriate protest against the prevalent treatment of bank buildings with cold and threadbare Classical details. The bulbous angle spirelet sits rather awkwardly on the roof, though this would not be seen from below in most situations.

1,882. "All Saints' Church, West Dulwich; view of north-east end": G. H. Fellowes Prynne. This is a picturesque building in general design and grouping, but rather hard and bald-looking in detail. A two-storied gallery runs round the east end (the main feature of which is a polygonal apse), an open arcade below, with passage way through the buttresses; a closed gallery with small windows above. A tall square turret, placed obliquely on plan, rises from the junction of nave and chancel on the north side, balanced or contrasted by a tall flêche on the ridge. Below, on the north side of the aisle, a circular stair turret with a conical roof is placed with good effect. The upper windows of the main apse are traceried, as also those of one of the two smaller apses at the east end of the aisle, which is further accentuated with external sculpture. The rest of the windows are plain pointed lights. The building is certainly an unusual and should be rather a striking one; but it very much needs a plan to explain its construction and the reason of the various parts.

1,884. "Harrow School; New Music School"; Mr. E. S. Prior. This is an original and very well-executed coloured drawing, but it is vexatious to find so clever an architect as Mr. Prior is, giving his mind to the production of such a very ugly building. Good honest brickwork, no doubt, (as Cobbett is made to say of Drury Lane Theatre in "Rejected Addresses"), but where does the architecture come in? The open arches in the basement, just down on the ground level, produce the effect of the building having been partially covered by accumulations on the site, and requiring excavation. It is not commonplace, but its originality seems to consist in its extreme ugliness, combined no doubt with the artistic execution of the drawing. From the plan we see that the building consists of a central hall with an orchestra, surrounded by side blocks (on the other side of the corridors) containing small practising-rooms. These have corners canted off and circular flues introduced in the blocks thus left between—looking as if they were to carry off superfluous sound, but in reality we presume for warming.

1,885. "New Organ Case, Paignton Parish Church": Mr. A. Mardon Mowbray. Unless the scale is deceptive, this seems to be a large example of the Parish Church organ; we presume the large metal pipes to right and left belong to a 16 ft. metal pedal diapason: the two largest are marked out for a little special decoration—a new idea. The architect has here rightly treated the design with the larger pipes at the side; the pipes introduced in the front are very multitudinous; if all speaking pipes, rather too much so for the benefit of the instrument, musically speaking; it is not well to displace so many pipes from their proper position on the sound board. The design, treated with a good deal of carved woodwork, has a rich effect, though the eye does not feel quite satisfied with the stepped skyline (so to speak) of the façade.

1,892. "Hotel, Scheveningen"; Mr. T. W. Aldwinckle. This is a praiseworthy attempt to give something of picturesque and architectural effect to a hotel, without losing hotel character, or what is supposed to be so. The upper portion of the gabled front is treated with that kind of profusion of colonnettes and pilasters so common in Dutch Renaissance buildings, and there is a large octagonal campanile, with open stages at the top, the ground floor of which forms the entrance-hall apparently; but there is no plan. The series of verandah hanging roofs on various stories, no doubt necessary to the comfort of a hotel in hot weather, form a feature which unfortunately militates very much against architectural character, and would give to the best building a kind of Chinese pagoda character.

1,894. "Reid's New Hotel, Madeira"; Mr. Somers Clarke. This is a large and effective sepia drawing, showing the hotel white and bright in the sunlight, on a rocky cliff, with gardens in front and a range of hills behind. The hotel consists of two main blocks placed at right angles, forming two sides of a square, each block terminated by an oblong tower with a lower range of buildings between butting against the sides of the tower. The adjacent towers of the two blocks are connected by a lower building forming part of an octagon on plan, the upper story of which is an open one, with the roof carried on posts. There is little pretence of architectural treatment in a decorative sense, but the whole is picturesquely grouped and looks like what it is, a hotel for a warm climate.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

THE final meeting of this Institute for the present session took place on Monday evening last, Mr. Alfred Waterhouse, R.A., President, in the chair.

Mr. W. H. White (Secretary) announced a long list of donations to the library, and votes of thanks were passed to the several givers.

Election of New Members.

A ballot was then taken, when the following gentlemen were elected as *Fellows* of the Institute, viz., Messrs. Frederick William Tarring, New Southgate; Edward William Mountford (*Associate*), London; Stockdale Harrison (*Associate*), Leicester; Christopher Harston, London; Nathan Solomon Joseph, London; John Salmon Quilter (*Associate*), London; William Henry Spaull, Oswestry; Philip Henry Tree (*Associate*), St. Leonards-on-Sea; Edward Henry Bruton (*Associate*), Cardiff; James Neale, F.S.A. (*Associate*), London; Walter Augustus Hills, London; William Henry Thorp (*Associate*), Leeds; Leslie Ower, Dundee; William Douglas Caröe, M.A., Cantab, London; Leonard Aloysius Scott Stokes (*Associate*), London; Robert William Collier (*Associate*), London; Frederick Atkinson Powell (*Associate*), London; and Stephen Shaw, Kendal.

The following gentlemen were next elected as *Associates* upon a show of hands, viz., Messrs. Herbert William Doe, London; Frederick Moore Simpson, London; Samuel Edward Wall, London; Herbert Stone Wood, Beckenham; Bastick William Nunn, Brighton; Thomas Edgar Eccles, Liverpool; William John Mettam, Leeds; William Eaton, Leicester; Eustace Corrie Frere, London; Richard Thomas Beckett, Hartford, Cheshire; Robert Stodart Lorimer, Edinburgh; Henry Harold Hughes, Ealing; James Sivewright Gibson, London; George Harvey, London; Samuel Bridgman Russell, London; Alfred Eustace Habershon, St. Leonards-on-Sea; William Brame Goodwin, London; Henry Leonard Hill, London; Alfred Henry Hart, London; Arthur Edward Anscombe, Harpenden; Edward Carter, Surbiton; Arthur Harry Heron, Uxbridge; and Harold Arthur Woodington, London.

The following were elected as *Honorary Associates*,—viz., Mr. Alexander Stuart Murray, LL.D., F.S.A., Keeper of the Greek and Roman Antiquities, British Museum; and the Right Hon. Lord Savile, G.C.B. As *Hon. Corr. Member*, Professor Johannes Otzen, Berlin.

Alliance with a Provincial Society.

The President: I have great pleasure in announcing that the Council have at their meeting to-day resolved to recommend to the general body that the Leeds and Yorkshire Architectural Society be admitted to alliance with the Royal Institute, under the provisions of by-laws 77 and 81.

Presentation of the Royal Gold Medal.

The President: Gentlemen and colleagues, before proceeding to the most pleasing duty which falls to the lot of your President in the course of his year of office, that of presenting, in the Queen's name, her most gracious Majesty's annual gift to some architect, or man of science of any country, who has produced a work tending to promote the knowledge of architecture, it may be interesting to this meeting if I remind you that, of the forty-two gold medals already awarded, twenty have been given to fellow-countrymen whose greatest claim to distinction was their success as practising architects, while seven other medals were awarded to Englishmen whose claims were rather that as authors or archæologists they had done something noteworthy for the advancement of our art. Of the fifteen foreigners

who have received this honour, more than half the number have been so distinguished by us for their achievements as architects,—for their buildings rather than for their books. Now, I trust that the choice of the Institute having fallen in twenty-eight cases out of forty-two, or on two-thirds of the total number, on practising architects, may be looked upon as a matter for congratulation, and as a sign of architectural vitality during Her Majesty's reign. When the medal was first instituted there were giants in the land. Cockerell and Sir Charles Barry were the first two English recipients. Such men seem now hardly of ourselves, their achievements were so splendid, so numerous, so varied. Still, we must not forget that it is easier to see the excellences of those who have passed from us, than of those who are with us still. There are now a greater number than ever before of men of capacity, merit, and sterling character, who are doing their best, by their lives and practice, to uphold the status of the profession, and make it appreciated by the world, though their opportunities for distinction may not be so great as those of their predecessors half a century ago, and though there may be many more to share such opportunities as present themselves. Now, I think pre-eminently among these stands the colleague whom we have chosen to honour, by recommending him to Her Majesty as the recipient of her gold medal this year. Mr. John Gibson entered the office of Sir Charles Barry, then in Foley-place, as his articled pupil, in the year 1835. In the following year, when the first premium in the great competition for the New Palace of Westminster was awarded to his master, he had the enviable distinction of being his only pupil. He was soon joined, however, by a host of others, — George Vulliamy, W. H. Brakspear, James Murray, and George Somers Clarke amongst the number. After serving a three years' term of pupilage, he remained his master's assistant for six years, and must have been more or less engaged on such works at Trentham Hall, University College, Oxford, Harewood House, Duncombe Park, the Board of Trade, Whitehall, and above all the Houses of Parliament, which were then occupying the attention of Sir Charles Barry, at 32, Great George-street, whither he removed to be near his great work, on the details of which, I believe, Mr. Gibson was largely employed. Sir Charles had a high appreciation of his pupil's talent and character, and in course of time they became dear friends, a friendship which Mr. Gibson highly prized, and which continued to the last. Commencing practice therefore in 1844, after so excellent a training, Mr. Gibson appears to have entered at once on his most successful career. Among his earlier works I may enumerate the National Bank of Scotland, Glasgow, the Imperial Fire and Life Office, Threadneedle-street, and the well-known and characteristic twin-spired Romanesque chapel in Bloomsbury, erected in 1847. He appears to have carried out many works in Warwickshire about this time—Compton Verney for Lord Willoughby de Broke, Wroxton Abbey for Colonel North, Charlecote Park for Mrs. Lucy, Guy's Cliffe, and several churches. He built his ecclesiastical *chef d'œuvre*, Bodelwyddan Church, for Lady Willoughby de Broke. Plas Power, near Denbigh (1858), is a clever re-clothing of a once commonplace-looking house. The Todmorden Fielden family have availed themselves largely of Mr. Gibson's skill — Mr. Joshua Fielden at Nutfield Priory; Mr. John Fielden at Dobroyd Castle; Mr. Samuel Fielden, at Central Hall, both near Todmorden, where also he built the Town Hall and Unitarian Church, both for the same family. But by far to me the most remarkable of Mr. Gibson's professional connections is that with the National Provincial Bank of England. This great company apparently employed nobody but Mr. Gibson as its architect as long as he remained in practice. He built for them, not only the very striking and original head office in Threadneedle-street, and the branch bank in Piccadilly, but upwards of forty branches, some of them, as at Birmingham, of great merit and importance. It is worth while to note again in London Childs' Bank, and the house of the Society for the Propagation of Christian Knowledge, the first building erected in Northumberland-avenue, where its fine proportions are now seen to a disadvantage from the height to which its neighbours have risen. Time will not allow of my giving you at greater length a catalogue of Mr. Gibson's achievements. In fact, so modest is he, in speaking of his works, that I have had some difficulty in getting to know what they have been. I shall ask the Editor of our *Journal of Proceedings* to give us as correct a list of them as possible.* When you come to look over that list you will, I think, deduce from it the inference that Mr. Gibson's clients were all very fond of him. When they had once discovered him, they found him a treasure. They stuck to him and never dreamt of looking about to see if any one else could be found to take his place. One who knew him most intimately says of him—"He was on the most excellent terms with all his clients, and was always held in the highest esteem, not only by them, but by the whole of his staff, and by those employed in executing his work." Gentlemen, what can any of us wish to have said of ourselves more than those words convey in Mr. Gibson's case?

Addressing Mr. Gibson, and handing him the medal, the President said:—Mr. Gibson, I have now the greatest possible pleasure in handing you this, the highest distinction which it is in the power of the Institute to confer, and which is presented to you with her Most Gracious Majesty's expressed approval.

Mr. Charles Barry said that, as the representative of his late father, he might perhaps be permitted to congratulate Mr. Gibson on the receipt of the honour which had just been conferred upon him. Mr. Gibson had several old friends in the room, but he ventured to doubt if he had any older friend than himself (Mr. Barry), as their friendship dated back more than fifty years, from the time when he (the speaker) was a schoolboy. In the quiet and unostentatious life which Mr. Gibson had led, he had been an ardent and zealous worker, imbued with the most infinite artistic feeling, as well as with great powers, constructively and otherwise. All his works were distinguished by a plain solidity and a refinement of feeling, combining excellent proportions and purity of detail, without straining after those ruinous fantasies which nowadays seemed to be so attractive to the public. Any one who had passed a long life of practice in that way was of peculiar use, as a protest against the opinion that anything but careful study and attention to proportion, purity, and simplicity of style, represented the goal to which an architect should press, and by which he would be most creditably known in all future time. The President had really exhausted the subject in the arduous care which he had taken to ascertain the various credentials of Mr. Gibson's architectural work for the honour which had been conferred upon him. He would, therefore, conclude by congratulating the Institute on having made such a choice. He could only have wished that it had been conferred upon Mr. Gibson years ago, for he deserved it then as much as he did now.

Mr. John Gibson, in replying, said: — Mr. President and gentlemen, there is no position more difficult to me than that of replying to a compliment, especially when that compliment has been paid and conveyed in such eloquent and eulogistic words. I therefore, from late severe illness and present emotion, must make a very short speech in thanking you for the honour you have done me in making me the recipient of the only gift, I may say, of great eminence, which it is in the power of the Institute to bestow. I beg you will kindly excuse the shortness of my reply, and accept my grateful thanks for the honour which you have conferred on me, an honour which I never expected, and one which, coming from her Most Gracious Majesty the Queen, at your voluntary recommendation, I shall ever look upon as one of my most precious treasures. I thank you collectively and individually for your kindness.

Professor Aitchison said he had had the honour of knowing Mr. Gibson for a great many years, and could reiterate all that had been said as to his amiability and kindness. As Mr. Barry had already mentioned, what struck him about Mr. Gibson's works was their extremely noble proportions, which, he was sorry to say, were not so commonly met with in the present day as one would wish. They might all therefore consider that her Majesty had been well advised in giving encouragement to those grand proportions which distinguished architecture so greatly. Mr. Gibson had handed down those proportions which, coming from the Greeks and the Romans, were transmitted through Palladio and the great masters to the father of Mr. Barry.

The President: I am particularly pleased that my remarks have been supplemented by the words of Mr. Barry and Professor Aitchison. I most thoroughly agree with every word they have uttered as to the beauties of refinement and proportion which have distinguished our present Gold Medallist's work, and the valuable lessons they inculcate to us. We may now bid each other affectionately farewell at the close of this session. I cannot allow it to close without thanking you, from the chair, for the assiduous way in which very many of you have attended the meetings of the session, and I hope next session we shall have even a better attendance than we have had this.

The proceedings then terminated.

THE ARCHITECTURAL ASSOCIATION.

THE last ordinary meeting of the Association, adjourned from May 16, was resumed on Friday last, June 13, when the alterations of the rules drawn up by the Committee in order to carry out the instructions given them by the special business meeting of May 30, to carry into effect the various resolutions dealing with the report of the Special Education Committee, were proposed; in addition, a further alteration of Rule 43 was proposed in writing by several members: "After show of hands," add:—

"But no question touching any alteration of the rules or constitution of the Architectural Association shall be decided upon at any meeting without first submitting such proposed alterations to the whole of the members, and furnishing each member with a printed voting-paper; the decision of the majority so voting shall be considered final."

Rule 43 will then read as follows:—

"All voting shall be taken by show of hands, but no question touching any alteration of the Rules or Constitution of the Architectural Association shall be decided upon at any meeting without first submitting such proposed alterations to the whole of the members, and furnishing each member with a printed voting paper; the decision of the majority so voting shall be considered final."

The ordinary meeting was then terminated, and the special business meeting called for that evening commenced, when the minutes of the last special business meeting were read and confirmed. Mr. J. Douglass Mathews then proposed that the alteration of Rule 43 should be considered prior to the alterations proposed by the Committee. This was seconded by Mr. Stannus, and a long discussion ensued, in which Messrs. H. Sirr, A. W. Earle, A. Needham Wilson, W. J. Leverton, A. Beresford Pite, Frederic R. Farrow, Owen Fleming, H. O. Cresswell, Percy Hunter, and F. H. Collins, took part.

The proposition being put was carried by 38 votes to 26. Mr. Collard then proposed that the special business meeting be adjourned for a fortnight. This was seconded by Mr. Earle. Mr. Stannus proposed as an amendment that the alteration of Rule 43 be considered that day week, and the remainder of the proposed alterations adjourned till next session. Mr. Max Clarke proposed a further amendment that the special business meeting be adjourned for one week. After some discussion, Mr. Collard's proposition was withdrawn, and Mr. Stannus's amendment was put and lost by 43 votes to 30. Mr. Max Clarke's proposition was then put and carried by a large majority, and the President accordingly declared the meeting adjourned until Friday, June 20, at 7 p.m. It is to be hoped that there will be at the adjourned meeting a larger attendance than was present last Friday; many members evidently considered that the business of last Friday would be merely formal, but it is evident that there is a small but active opposition who are determined to leave no means untried to upset the proposed extension of the educational methods of the Association, and it is therefore incumbent

* The following is a list of Mr. Gibson's works which have been illustrated in the *Builder*:—Bloomsbury Baptist Chapel, volume for 1848, page 186; Imperial Insurance Office, Threadneedle-street, volume for same year, p. 258; Bodelwyddan Church, near St. Asaph, volume for 1860, p. 657; National Provincial Bank of England, Threadneedle-street, 1865, pp. 835, 908; Dobroyd Castle, Todmorden, 1869, 947; National Provincial Bank of England, Newcastle, 1872, p. 786; National Provincial Bank of England, Piccadilly Branch, 1873, p. 457; Window and Grille, National Provincial Bank of England, Newcastle, 1875, p. 506; Nutfield Priory, Surrey, 1874, p. 53; National Provincial Bank of England, Middlesbrough, 1874, p. 155; Todmorden Town Hall, 1875, pp. 300, 324; Saloon and Staircase, Dobroyd Castle, Todmorden, 1875, p. 953; National Provincial Bank of England, Stockton-on-Tees, 1877, p. 661; Chimney Pieces, Nutfield Priory, 1878, p. 1,146; Building for the Society for Promoting Christian Knowledge, Northumberland-avenue, 1879, p. 1,153; National Provincial Bank of England, Sunderland, 1879, p. 1,379; and Childs' Banking House, Fleet-street, Nov. 27, 1880, p. 646.

upon all who wish to see the new scheme carried into effect to attend and support the Committee, and especially to notice the alteration of the hour to the earlier time of 7 p.m.

SURREY ARCHÆOLOGICAL SOCIETY.

A VERY successful afternoon meeting of this Society was held at Wimbledon on Saturday afternoon last.

Meeting at the parish church (St. Mary's) at three o'clock, an interesting paper on the fabric and its history was read by one of the Hon. Secs., Mr. Mill Stephenson. The greater part of the church is modern, it having been rebuilt in 1843 (in succession to a curious "Classical" structure built at the end of last century) by the late Sir Gilbert Scott, then a partner in the firm of Scott & Moffatt.

The visitors then walked across Wimbledon Common to inspect what remains of the remarkable circular earthwork, long (and still) erroneously called "Cæsar's Camp" or "the Roman Camp." Here Mr. Ralph Nevill read a paper, in which he said he gave in short compass the little that was known and had been said about the place, together with such considerations as had suggested themselves to him. All that had been previously written about the Camp was well brought together by Mr. Tregellas, in a paper published in 1866 in the *Archæological Journal*. The Battle of Wimbledon, the first fight between Saxon and Saxon, had been very ably treated in an article on the "West Saxon Conquest of Surrey," by Mr. Henry Elliot Malden, published in the *English Historical Review* for 1886. Although later Roman camps were of more various formation than was sometimes imagined, it might be taken for certain that this was not Roman, since at the only time that a Roman camp could have been required in that district, viz., at the time of one of the two first invasions, the form would certainly have been the orthodox rectangular. There was nothing in the contents found in the barrows that once existed, and that were examined by Douglas in 1786, to determine the date of their formation. Mr. Nevill thought that it might safely be concluded from its regular shape (almost a true circle) that the place was made as a war-camp, and was not one of those entrenched towns that were with certainty referred to a British date. He was strongly inclined to think that it was of Saxon or Danish date.

Sir James Ramsay, in some remarks which followed, said that the remains were unquestionably British. In this he was supported by Mr. George Lambert, F.S.A. After a vote of thanks had been given to Mr. Nevill, on the motion of the President, Viscount Midleton (who deplored the havoc that had been made with the remains during the last twenty years), the visitors walked back over the Common and proceeded to

Eagle House, now the residence of Mr. T. G. Jackson, the eminent architect. Mr. Jackson received the visitors in his library, the largest room in the house, and read to them an interesting and pleasantly-written paper. The interest attaching to the house, independently of such architectural character as it still retains, arises from the fact that it is a well-preserved example of the private residence of a London merchant of the reign of James I. The house was built early in that reign by one Robert Bell, citizen and Girdler, and subsequently deputy-alderman of the Ward of Lime-street, where he carried on business as a merchant. His father and his grandfather, both Robert Bells, had lived at Wimbledon before him, as appears by the Herald's Visitation of 1633-34, where his arms are recorded —*azure* an eagle displayed *argent* below three fleurs de lys *or*. Mr. Jackson has not been able to discover the exact date of the building of the present house. The first mention of it occurs, according to Manning and Bray's "History of Surrey," in the Survey of the Manor in the year 1607. It is there spoken of as "a fair new house." But by the kindness of Mr. Plaskett, the present Steward of the Manor, Mr. Jackson has been able to see this survey, and finds that the date is not 1607, but 1617. All, therefore, that can be said with certainty of the date of the house is that it was standing in 1617. From other evidence Mr. Jackson believes that it was built before 1613. The description given by Manning and Bray of the heraldry still holds good. The arms mentioned by them are still on the ceiling of the large room on the first floor, now used as a library, one of the coats being that of Robert Bell. The initials which Manning and Bray saw on the front of the house in several places disappeared under the coat of stucco with which a subsequent owner covered the handsome red brick and ashlar of the outside walls; but when the back of the house was partly restored in 1887, the stucco was removed from the two lower stories and exposed some little square stones, spaced at regular intervals, in the frieze of the entablature that marks the second-floor level; and on two of these may still be seen, though much defaced by the plasterers (who hacked the stone to obtain key for their stucco work), the ciphers of Robert Bell and Alice his wife. The excellence of Robert Bell's building is testified by its perfect condition at the present day. The walls are of solid brickwork, those outside varying from 2 ft. 3 in. thick in the basement, to 18 in. in the attics, while the two party-walls that divide it from front to back, and contain the flues and chimney-stacks, average 3 ft. in thickness. There are three gables to the front, the middle one slightly in advance, with an oriel window over the entrance, and in the two side spaces each a bay-window from the ground to the second floor. The back is similar, except that the middle bay-window ran up from the ground instead of being cut short as an oriel, and that the middle space recedes instead of projecting. The sides of the house have each two gables, making in all ten gables, of the picturesquely-broken profile characteristic of Jacobean architecture. The quoins and the lower windows are of Caen stone, but all the mullions, window-frames, and transoms of the upper stories are of oak, inserted in brick reveals, with a simple moulding worked in the brickwork round the opening. The allowance of windows was so liberal that it is no wonder that many of them have been closed with lath and plaster, and however much one may have wished to re-open them as part of the original design, it would have been very difficult, had one done so, to find places for the furniture. The architect was not less liberal in the matter of height from floor to floor, for instead of the usual low-pitched rooms of Jacobean houses, he has provided rooms of 12 ft. and 13 ft. high. The house was evidently handsomely finished within; as late as 1763 it appeared by an old inventory that the principal rooms were wainscotted, and had high chimney-pieces up to the ceiling. Although this has all but disappeared, we have left four rather remarkable plaster ceilings, which date from the building of the house, and are still perfectly preserved. They are unusually good specimens of this kind of work, both as regards design and execution. The finest is that in the large room, now used as a library, which measures nearly 31 ft. by 20 ft. The plan of the original house was extremely simple. On each of the three lower floors there was one large room in the middle from front to back, with light at each end, and rooms and a staircase on both sides of it. The back or secondary staircase is still the original one, constructed with framing of great oak beams in post and pan work, like the staircases in an Oxford college, and with treads of elm. The best staircase, on the other side, has, unfortunately, disappeared, and been replaced by an inferior one of deal, dating from the last century, when the block of building containing the present dining-room was added, and one of the bay-windows had to be removed and the staircase altered to make way for it. In concluding his paper, Mr. Jackson very pleasantly described the history of the house since the time of Robert Bell. In 1787 we find the Right Hon. William Grenville, the relative and colleague of Pitt, living here. Grenville probably left the house in 1789, on his election to the Speakership. From his time until the house came into the possession of Mr. Jackson, about four years ago, the house was used as a school. At one time it was called "Nelson House School," from the fact that Nelson and Lady Hamilton once visited it and heard the boys recite their pieces. The school was afterwards kept by a Mr. Stoughton, then by Messrs. Stoughton & Mayer, Messrs. Mayer & Brackenbury, and finally by Dr. Huntingford. It is to Dr. Huntingford that it owes its present name; he had previously had a school at Eagle House, Hammersmith, and when he brought it to Wimbledon, he brought with it not only the name but the eagle which now surmounts the middle gable of the front.

A vote of thanks was accorded to Mr. Jackson for his interesting paper.

THE FRENCH ARCHÆOLOGICAL SOCIETY.

THE annual meeting of the Société Française d'Archéologie commenced on the 17th inst., under the presidency of Count de Marsy, Director of the Society. It is held this year at Brive, a small town in the Department of Corrèze, about two-thirds of the distance from Paris to Toulouse. On Monday next the Archæologists will move their headquarters to the neighbouring little town of Tulle.

At 1.30 p.m. on the opening day the President and members were received by the Maire of Brive, and by the President of the Société Scientifique et Archéologique de la Corrèze, at the Hôtel de Ville, and after the usual expressions of welcome from the Maire had been duly responded to, the Count de Marsy, as President, read his annual address. This consisted almost entirely of a review of the archæological work done in France during the past year, chiefly by members of the society, and of a comparison of the state of the science in the present day and at the time of the foundation of the Société Archéologique by the late M. de Caumont.

This was followed by a paper on the authorities for the history and archæology of the district, after which the members and their friends inspected the church and other antiquities of the town, under the guidance of the Presidents of the two societies. Among the archæologists present besides the Count de Marsy, were the Count A. de Dion, Baron de Loé, of Brussels; MM. E. Travers, of Caen; Caithaillac, of Toulouse; L. Germain, Francart; the Rev. S. S. Lewis, of Cambridge, and many others.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held on Tuesday afternoon at Spring-gardens, Lord Rosebery in the chair.

New Standing Orders as to Tenders.—The Standing Committee reported as follows:—"The Council on the 3rd inst. had before it a report by the Parks Committee, stating that, in consequence of the long interval between the date of a certain tender and its final acceptance by the Council, the person who had sent in the tender was not prepared to adhere to it, and had asked for an additional payment. This has led the Deputy-Chairman to suggest for consideration an amendment of the standing orders relating to tenders so as to obviate unnecessary delays. The proposed alterations appear to us desirable, and we recommend—

'That the Standing Orders of the Council in relation to tenders be as follows:—

All tenders where the estimated expenditure exceeds 500*l.* shall be opened in the Council by the Chairman, and be immediately referred without discussion to the Committee which they concern. In such cases the Solicitor shall at once, and without waiting for the meeting of the Committee to which the tenders are referred, make such inquiries (if any) as he may consider necessary as to the competence of the lowest tenderer, and, if the information obtained do not appear satisfactory, then into the competence of the next lowest, and so on until a satisfactory result shall have been obtained, reporting the result to the Committee as early as possible.

Where the estimated expenditure is below 500*l.*, tenders may be opened by a Committee, and shall then be reported to the Council. The Committee shall, however, as soon as the tenders are opened, instruct the Solicitor to make such inquiries as the Committee may consider necessary.

When a contract has been executed by the contractor, it shall be submitted for sealing at the next meeting of the Council, without being again brought before the Committee.'"

These recommendations were agreed to *nem. dis.*

City Improvements. — The Improvements Committee brought up an adjourned report stating that the Committee had had under consideration an application from the City Commissioners of Sewers for a contribution towards the cost of improvements in the following thoroughfares, viz.:—(1) Threadneedle-street; (2) Upper Thames-street; (3) Paul's-chain and Godliman-street; (4) Houndsditch and Aldgate High-street; (5) Warwick-lane; (6) New Broad-street; (7) Minories. The Committee recommended that the Council should contribute 3,547*l.* (one-third of the total estimated cost) towards No. 1; 2,500*l.* (one-third of the cost) towards No. 3; and 1,833*l.* 6*s.* 8*d.* (one-third of the cost) towards No. 6. With regard to improvements Nos. 2, 4, 5, and 7, the Committee recommended that the Commis-

sioners be informed that the Council is not prepared to contribute towards their cost, and these recommendations were agreed to at once. On recommendations 1, 3, and 6, however, which were taken separately, long discussions arose. Eventually No. 1 was rejected on a division by 51 votes against to 36 for; No. 3 was negatived without a division; and No. 6 was rejected on a division by 48 votes against to 42 votes for.

District Surveyors and their Tenure of Office.—The first portion of the report of the Building Act Committee was as follows:—

"Your Committee present a report upon the following references—

'A. As to a reform of the system hitherto followed in the appointment of District Surveyors in the Metropolis, with the view of arranging that the duties hitherto discharged by the District Surveyors shall be performed by a department of the Council, and that all fees received in connexion with such duties shall be paid direct to the Council.

B. Whether all District Surveyors to be appointed by the Council should not be appointed at a fixed salary, instead of by fees, and on condition that they shall devote their whole time to the office, and not engage in private practice, also whether all fees payable in respect of their office should not be paid into the County Council Account.'

Speaking generally, very grave and extended dissatisfaction exists in the public mind as to the present system. An impression prevails that the office as now constituted is frequently sought, not only for the emoluments belonging to it, but for the advantageous position in which it places an architect to secure other professional work, and it would, in the opinion of your Committee, be desirable to bring the District Surveyors into closer touch with the Council.

The conditions of appointment in force since June, 1886, the Council is doubtless aware, prohibit a District Surveyor from practising in his own district, but it is competent for him to nominate another architect for such work, and thus this restriction may be rendered, to a certain extent, a fiction.

Before considering the references A and B, we sought the opinion of the District Surveyors' Association, the Royal Institute of British Architects, the Architectural Association, the Surveyors' Institute, and the Institute of Builders, upon the changes contemplated by these references. With the exception of the Architectural Association, which was unwilling to express a definite opinion as to debarring District Surveyors from private practice, all unite in the desire that no change should be made in the present system, but numerous alterations of the law in other directions are suggested.

In considering reference A, your Committee was, at a very early stage of its investigation, impressed with the opinion that putting on one side the delay consequent upon any attempt at an alteration of the law, the duties devolving upon District Surveyors are not likely to be efficiently carried out by a 'Department of the Council.' London is, in fact, too large to administer this detail work from one centre. In practice, a great many cases would, in our opinion, remain unreported under such a plan. Not only would this cause considerable decrease in the fees received, but, what is more important, the system would fail to secure, in the public interest, more efficient administration of the Building Acts.

In considering reference B, a joint report was presented by the Solicitor and the Superintending Architect, upon the power of the Council with regard to paying District Surveyors by salary instead of by fees. In their report, sections 65 and 66 of the Act of 1855 are quoted, by which the Council is enabled to pay a salary to any District Surveyor, instead of fees, provided the amount of such salary be not less than the amount of the average fees for the previous three years, and in such case the fees would be payable by the District Surveyor to the Superintending Architect, who would account for and pay them to the Council, and your Committee is advised that those conditions apply to old as well as new appointments.

If the plan were adopted of paying District Surveyors a fixed salary based upon the average fees for the previous three years (and this, it appears from the Act, must be the basis for such payment), we think that injustice might be done to a District Surveyor in whose district building operations were increasing, because, although extra work would devolve upon him, the Council would be receiving the increased fees. The system would be equally unsatisfactory in the case of a District where the fees might fall either from diminished building operations, or from a cause which may be suggested, viz., that a salaried District Surveyor might not be so anxious to recover the fees as at present.

We have carefully considered this matter, and are of opinion that the Council should continue the payment of District Surveyors by fees as at present, but, having in view the public advantage likely to result from a more systematic and personal inspection of buildings by District Surveyors than it is evident exists generally at the present time, recommend that they be appointed on the condition that they devote their whole time to the duties of their office.

Since the references to the Committee upon this subject, two vacancies have occurred: one in South St. Marylebone, caused by the death of Mr. J. Jennings, and one in East Islington, by the death of Mr. John Turner, so that the Council has now two vacancies to fill.

Your Committee submit the following recommendations to the Council—

'1. That no person shall be accepted as a candidate for the appointment of District Surveyor unless he shall have attained twenty-eight years of age, and be under fifty years of age, and that every such candidate shall deliver with his application satisfactory evidence of his age.

2. That every candidate shall be required to sign a declaration and deliver it with his application that he becomes a candidate, and will accept the appointment if he should be appointed on the following understanding:—(*a*) That he will personally discharge the duties of his office subject to section 35 of the Metropolitan Building Act, 1855. (*b*) That he will give his whole time to the duties of his office. (*c*) That he will not during his continuance in office (except in the discharge of the duties thereof) carry on business as an architect, surveyor, or builder, or directly or indirectly as a partner or otherwise be interested in such business. (*d*) That he will furnish the Council with information of those cases in his district in which the orders of the Council or the requirements of the Metropolis Local Management Acts with regard to the width of streets, or to any building, structure, or erection, or projection therein beyond the general line of buildings are not complied with. (*e*) That he will make no claim for compensation in case a diminution of his income shall at any time hereafter arise. (*f*) That he will keep his District Office open from Monday to Friday (both inclusive) between the hours of 9.30 a.m. and 5 p.m., and on Saturday from 9.30 a.m. until 2 p.m., and give his personal attendance there daily from 9.30 a.m. to 11 a.m., and (except Saturday) from 4 to 5 p.m. (*g*) That he will retire if required to do so on attaining the age of sixty-five, or at any date subsequent to his attaining that age.

3. That the aforesaid declaration of the appointed candidate shall on his appointment be entered on the Council's minutes.

4. That the Districts be re-arranged by the Building Act Committee as opportunities may occur, so that the average of the fees received may in no case amount to less than 500*l.* per annum.

The Council reserves to itself the exercise of its powers of dismissal, if the District Surveyor so appointed should not act consistently with the understanding above set forth in any of the matters referred to therein, or for other sufficient reason.'"

Owing to the lateness of the hour when this report was reached, its consideration was postponed, and the Council, after transacting other business, adjourned.

THE ROYAL MILITARY EXHIBITION.

THIS Exhibition, now being held in temporary buildings erected on the grounds of Chelsea Hospital and Gordon House, in aid of the funds of Church of England Soldiers' Institutes, is one of some magnitude. It is, for the most part, housed in corrugated iron buildings, forming an irregular quadrangle enclosing the gardens of Gordon House, several annexes having been built partially around the open space known as the "Arena," which forms part of the grounds of Chelsea Hospital, and is used for various displays of a military or semi-military character. The main entrance is from the Chelsea Embankment. The Tite-street entrance is described in the catalogue as a reproduction on a small scale of the well-known double gateway at Malta. The grounds of the Exhibition buildings cover 7½ acres, 3½ acres being the garden of Gordon House (which has been laid out by Mr. Dick Radclyffe), and 4 acres forming part of the park of Chelsea Hospital, so that there is abundant space for *al fresco* delights. The grounds are illuminated at night by electric light and by coloured lamps. The roofs of the Exhibition buildings cover a space of 120,000 superficial feet.

The Exhibition is divided into three main sections, "Military Industrial," "Commercial," and "Loan." The first-named section is a very comprehensive one, and includes numerous exhibits of interest by the War Office from Woolwich Arsenal, the Ordnance Office, Dublin, the Tower of London, and the Ordnance Factory. The Honourable Artillery Company, the Brigade of Guards, the Royal Artillery, the Royal Engineers, the Life Guards, and many of the "territorial regiments" of the British Army, send collections of exhibits, varying from patch-work quilts to portraits in oils. Of course military clothing and accoutrements, past and present, and weapons old and new, are very largely represented in this section.

One of the objects of the Exhibition has evidently been to encourage our soldiers to devote some of their spare time to industrial pursuits. The results of their spare hours of labour are, it must be confessed, very unequal in quality. The best things are of course produced by the men who have been brought up to some trade, and who are wise enough to content themselves with sticking each man to his own *métier*. The industrial products of the soldier's leisure, when he is without the knowledge of a trade, or when he seeks to go outside of his own trade, are often just as unsatisfactory as those of his civilian brother who labours under the same conditions. Nevertheless, there is a great deal of very creditable work by soldiers in the Exhibition, the best display, on the whole, being, as might be expected, that made by the Royal Engineers, every man in that corps having a knowledge of some trade or other. In addition to their industrial exhibits, properly so-called, the Royal Engineers exhibit models of many temporary structures which they are called upon to build in time of war, such as bridges. Many of these are simple and rough-and-ready in construction, though quite adequate for their purpose. From some of these models many a carpenter and scaffolder in the building trade might derive useful hints.

We can only notice a few of the exhibits in detail. Colour-Sergeant-Major Armitage, R.E., No. 2,545 in the catalogue, exhibits an improved metallic lashing for spar bridges (equally applicable to scaffolding for building purposes), and a very ingenious shifting spanner, which consists of two parts, a shank or handle, and a head. The handle is forked to receive the head, which works on a pivot, allowing it to revolve through half a circle. The head can be adjusted by means of a pawl which engages in slots provided in the back part of the head. The head can be removed, and heads of different sizes put in, by taking out a screw-pin. The advantages of this form of spanner are very considerable, for it can be used in cramped places, is portable, and has great strength in the jaws. Colonel Fraser, C.M.G., 2,552 in the catalogue, shows some improvised glass drinking-vessels, &c., made from common glass bottles. The bottles are cut down evenly and smoothly by the following expedient:—A piece of string is passed rapidly to and fro round the bottle for a minute or two; the friction caused by the string makes the glass of the bottle warm on the line where the cut is wanted, and by immediately dipping the bottle into cold water far enough to cover this line the desired cleavage is cleanly effected, and the sharp edges of the improvised drinking-vessels are ground down by rubbing them on stone. No. 2,670 in the catalogue refers to an exhibit in the shape of a wrought-iron gate made by the "blacksmith boys" of the Royal Engineers, under the instruction of Sergeant H. Romain. Although it is a rather crude piece of work, it gives promise of better things. Various other specimens of workmanship, including plumbing, are shown by the members of this corps. The mention of plumbing work reminds us of sanitary work, and in this connexion we may say that the Exhibition includes a great deal bearing upon the hygiene of the soldier, both in barracks and under canvas. But we must take exception to the name bestowed upon one exhibit, which is described as "a model hospital ward." It is true that in size it is a model, but it is by no means a model for imitation. The exhibitor, Mr. H. Mark, if his model as we saw it correctly represents his ideas, offends against some of the cardinal rules now insisted upon in all good hospital-ward plans. In the model referred to, the beds are crowded together, some immediately under the windows, others half-way under the windows, and others again in corners where there are no windows on one side. While speaking of hospitals, we may mention the "Ambulance Gallery," facing the Arena, where, amidst painted scenery and realistic mounting by Mr. Rowland Ward, we may gain some idea of the horrors of war from the full-sized models of wounded men being

tended by surgeons and members of the Army Hospital Corps.

There is a large "historic loan collection," consisting of arms, armour, accoutrements, trophies of battle, and pictures, including portraits of military celebrities by Kneller, Reynolds, Romney, Sir Thos. Lawrence, and other masters. Some of these portraits, we see, are lent by the Trustees of the National Portrait Gallery. There is also a "Music Loan Collection" and an "Art Loan Collection." To complete the whole, there is a "Trade Section" which includes a great variety of miscellaneous exhibits, from Messrs. Doulton & Co.'s artistic and sanitary pottery to Messrs. Thurston & Co.'s billiard-tables and Mr. Gawthorp's memorial brasses.

As will be gathered from this brief sketch of the Exhibition, there is a great deal worth seeing in it. The main exhibition buildings were erected by Mr. Charteris, contractor, of Page-street, from plans by Mr. J. Wilson Bennison, surveyor, Mr. C. Miller being the clerk of works. Messrs. North & Son, of London-road, Southwark, have erected a number of the corrugated iron buildings facing the Arena, including farriers' shop, ambulance buildings, Press-room, fire and police stations, &c.

COMPETITIONS.

The Sheffield Municipal Buildings.—Thursday's Sheffield papers announce that notices have been issued calling a special meeting of the Town Council for Monday next to "receive the report of Mr. Waterhouse, R.A., and of the Improvement Committee on the six final competitive designs for the new municipal buildings, and as to the set of designs to be adopted, to consider the same, and to pass such a resolution or resolutions thereon as may be deemed expedient."

The Drainage of Guildford. — A limited competition for the drainage of the county town of Surrey has recently taken place, four engineering firms having submitted plans in response to the invitation of the Guildford authorities. The competitors were:—Mr. W. H Radford, Assoc.-M.Inst. C.E., of Nottingham; Mr. F. Beesley, M.Inst. C.E.; Mr. F. Wentworth Shields, M.Inst. C.E.; Messrs. Shone & Ault; and Mr. C. N. Lailey, Assoc.-M.Inst. C.E., of Westminster. Pumping will have to be resorted to in order to raise a small portion of the sewage to a suitable elevation for treatment. Four of the engineers advocate the purification of the sewage by what is known as the "International" process, which consists of adding a precipitant called "Ferozone," or ferrous carbon to the sewage, and allowing subsidence to take place in suitable tanks, the sewage being then passed through filter-beds composed of sand, gravel, and "Polarite" (a rustless magnetic oxide of iron in a highly porous condition), whereby a perfectly innocuous effluent can be obtained. Mr. Wentworth Shield's recommendation embraced treating the sewage upon land. The plans prepared by Mr. C. N. Lailey have been selected by the Committee appointed by the Guildford Corporation as the best suited for the town, and in these plans the "International process" will be carried out. Mr. Lailey designed the sewage works at Acton, at which place the International process was first put into operation more than three years ago. The total cost of the works included in Mr. Lailey's scheme is 22,408*l.*, and this design has received the approval of Sir Joseph Bazalgette.

The English Iron Trade.—On the whole, there is a slight improvement perceptible in the English iron market. Prices seem to be getting steadier, generally speaking, and the inquiry is somewhat better. The demand for pig iron is reviving, the low rates now ruling probably tempting buyers. The Glasgow warrant market has been firmer this week, and Scotch makers' iron is rather more readily taken up, some brands being quoted 1s. lower. In the North of England prices ruling last week have been maintained, and this, to some extent, is true of the value of pig iron in other districts. The hematite iron market of the north-west has also recovered, mixed numbers of Bessemer iron being quoted 3s. a ton higher. There is rather more inquiry for finished iron, but prices are not getting stronger; on the contrary, common Staffordshire bars can be bought 5s. and black sheets 10s. a ton cheaper. Steel is still quiet, and cheaper. The condition of the shipbuilding trade is not improving. Engineers keep fairly busy.—*Iron.*

Illustrations.

CHURCHES ON THE LOWER RHINE:

THE ABBEY OF ALTENBERG.

THE beautiful and interesting Abbey-church of Altenberg is without doubt one of the finest examples of "Geometric Decorated" work in Germany. It is, however, in such a very out-of-the-way spot, and so difficult to get at, that it is far less frequently visited than it deserves to be; so much so that when the writer, with two of his friends, was at Cologne last July, he could not come across a single person there who had seen the place, though it is only some fourteen miles distant. After, however, making the expedition, the wonder ceased, for the roads about Altenberg are the very worst in Europe, and the way, as the innkeeper at Schneebruck, the nearest town, informed us, is impossible to find without a guide. The railway goes to within a few miles of Schneebruck, through a desolate and hideous country. Then there is a disagreeable drive by omnibus from the station to Schneebruck itself,—an uninteresting place. Altenberg is eight miles off, and a carriage has to be hired for the journey there and back. The first two or three miles are simply a continuation of the ugly scenery which surrounds Cologne, but after a while we came in sight of a range of hills of considerable altitude, though looking rather bare; but when we arrived at the top the view was most interesting,—the whole valley of the Rhine was visible, with the great city of Cologne in the midst of a vast plain. The spires of its cathedral and churches, although some nine miles off, told out distinctly against a background of blue hills. Looking in the opposite direction, we saw another range of hills, higher than the one we were upon, separated from us by a valley, with a clear and rapid river. Down we went into the valley, and here we at once saw the truth of our driver's assertion, that a guide would be necessary to point out the way, for off we turned to the right down a lane, then to the left down another, then we zig-zagged up a hill, then we zig-zagged down on the opposite side, then we plunged into a river, then up the opposite bank past a pretty little village nestling amongst oak trees. More narrow lanes, when a huge hill, covered with a beech-forest, seemed to block our way and shut off all further progress; but no, the plucky old German horse,—he was certainly a true Prussian,—laboured bravely on up one zig-zag lane to the right, then sharply to the left, the beech-trees meeting over our head and sweeping the sides of the carriage. At last, with a pull and a struggle, we were on the very top of the hill, but surrounded on every side with other beech-clad hills, the counterpart of the one we had ascended. The driver paused, and, pointing down to the ground beneath the horse's feet, exclaimed: "Dort ist kloster Altenberg." Where, in Heaven's name!—under the ground? No. Looking down through an opening in the trees we saw, 200 ft. below, a rapid river with an ancient Gothic bridge, and on the opposite bank a picturesque gateway with a vast, cathedral-like church rising over it. The effect was so strange, so unexpected, that one could scarcely believe it to be real. But how on earth were we to reach it? To jump down plump on to the roof of the church seemed to be the quickest plan, but then it might be attended with disagreeable consequences. However, the mystery was soon solved. Zig-zags again, but this time all down hill, with the turns so sharp that every moment I expected we should enter the church, carriage and all, through the roof. However, at last we got down to the bank of the lovely river, and crossing the bridge, we entered the courtyard of the monastery, and the great lofty west front of the church, with its magnificent eight-light window and double doorway, was before us.

The order of monks who erected this magnificent church are no longer here—they were driven out of their monastery in 1802. The Prussian Government turned the place into a manufactory of "Prussian blue," and in 1833 the whole of the buildings, with the exception of the two churches, were burnt to the ground. The cloisters, chapter-house, and refectory were magnificent twelfth-century work, as some of the capitals and bits of mouldings kicking about in the inn-yard opposite the great church still testify. The church was much injured by the fire, its outer timber roof was destroyed, but, fortunately, the fourteenth-century glass with which all the windows are filled escaped. The Government of the day restored the church, and hence the ugly slate roof which we now see. The church belonged to the Cistercian order, and is consequently very plain and has no towers. It is, however, a noble structure, some 360 ft. long, with deep transepts, and choir terminating in an apse and chêvet with seven radiating chapels. The height to the vaulting is at least 100 ft.

Upon entering the building, its proportions and vast size at once impress one; but it is bare and cold to a painful degree, whitewashed all over! the only colour being in the windows, which are beautiful examples of grissaille work, dating from the close of the thirteenth and commencement of the fourteenth centuries. There is a little old furniture. A remarkably beautiful tabernacle (sacraments-hauslein) attached to one of the columns of the apse, a pretty sixteenth-century iron screen half-way down the nave, a great bronze pascal-candlestick, and a wrought-iron crane for lifting the font cover. The old altars all exist. They are simple square masses of stone, with slightly-moulded "mensæ." Between the columns of the choir is a series of magnificent monuments of abbots of the church and counts of Berg. They are, however, terribly mutilated, mere ruins, in fact. In the north transept is an immense Flemish brass. The chapel immediately behind the high altar is full of magnificent fragments of sculpture, which may possibly have belonged to a great reredos or a rood-screen.

This church is often called "The parent of Cologne," and has been supposed to have had the same architect, Gerhard von Rile. It was, however, commenced in 1255, and Cologne in 1248, so that it cannot be regarded as an earlier work. Whether Altenberg is by Gerhard von Rile, or the architect of Cologne, whoever he may have been, is a difficult question; I am inclined to think that they are not the work of the same man, and I venture to think that the architect of Altenberg was the greater man of the two. The proportions of Altenberg are far less exaggerated than those of Cologne, and there is a much greater air of repose about the interior. The principal points of variation in the two designs are the following:—Cologne has eight bays to the nave, Altenberg has nine; Cologne has four bays to each transept, Altenberg has only three; Cologne has four bays to the choir, Altenberg three; Cologne has four aisles to the nave, Altenberg only two; Cologne has clustered columns throughout, Altenberg *cylindrical columns everywhere*, with carved caps in the choir and moulded ones in the nave. The triforium at Cologne is glazed throughout the whole church, at Altenberg it is nowhere pierced through the outer walls. At Cologne the flying buttresses are double (in height), and at Altenberg single. Of course, I have not alluded to those variations which would necessarily follow from one being an abbey church and the other a cathedral, but simply to those which seem to display a different school of thought. It seems to me that Cologne shows the influence of the South-German School of Gothic working upon a French plan, whereas Altenberg, especially in the use of cylindrical columns, and the treatment of the flying buttresses, is more like northern work, with a strongly-marked Flemish feeling about it. The only features in the two churches which strike me as being very similar are the treatment of the chêvet. In both cases the treatment is purely French, undoubtedly copied from Amiens. This is remarkable in the case of Altenberg, because the Cistercian order very rarely built apsidal ends to their churches, though even in England we find one example in that of Croxden Abbey. It must, however, be conceded that the similarity of planning noticeable between the apses of Altenberg and Cologne is very remarkable. I can, however, scarcely think it a sufficient proof that the two churches were the work of the same architect—probably both men had seen Amiens, and copied its arrangement. A very curious feature at Altenberg is the row of blank square panels over the triforium arcade. In any other church than one belonging to the Cistercian order one would say that they were intended for pictures, but the Cistercians at this early date did not have pictures in their churches, and we see that even in the glass, immediately above, figures are excluded from the design.

The west front is considerably later than the

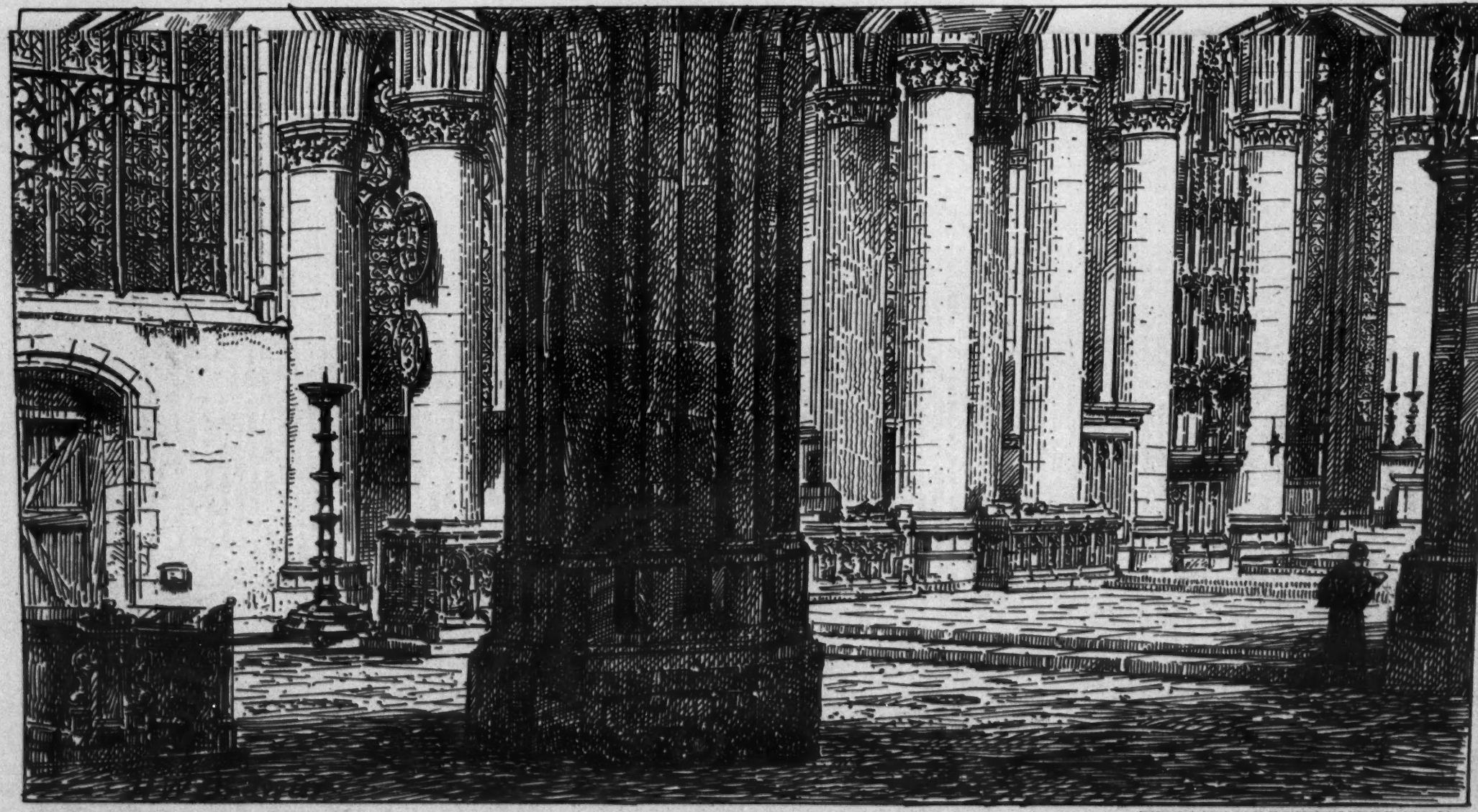
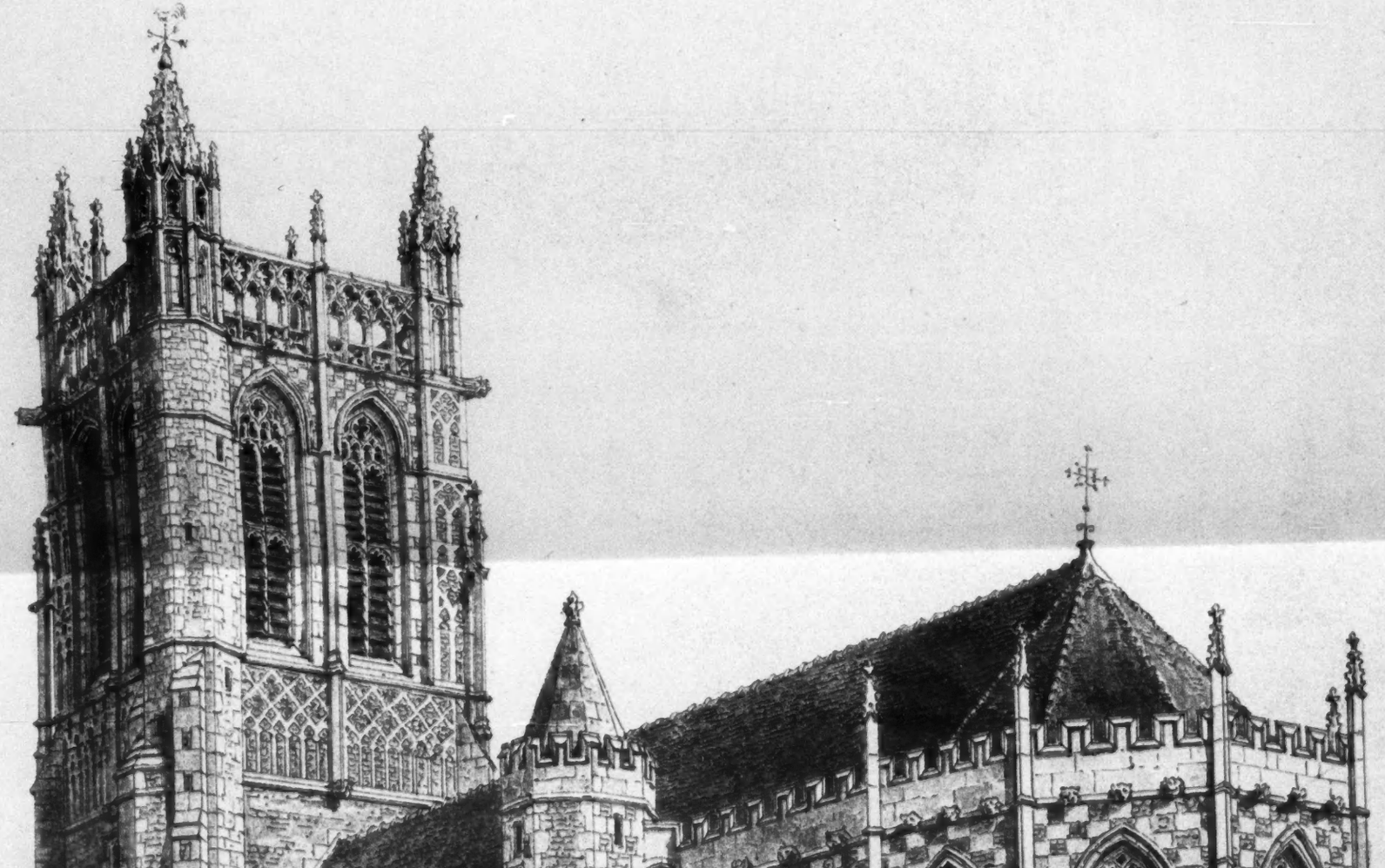
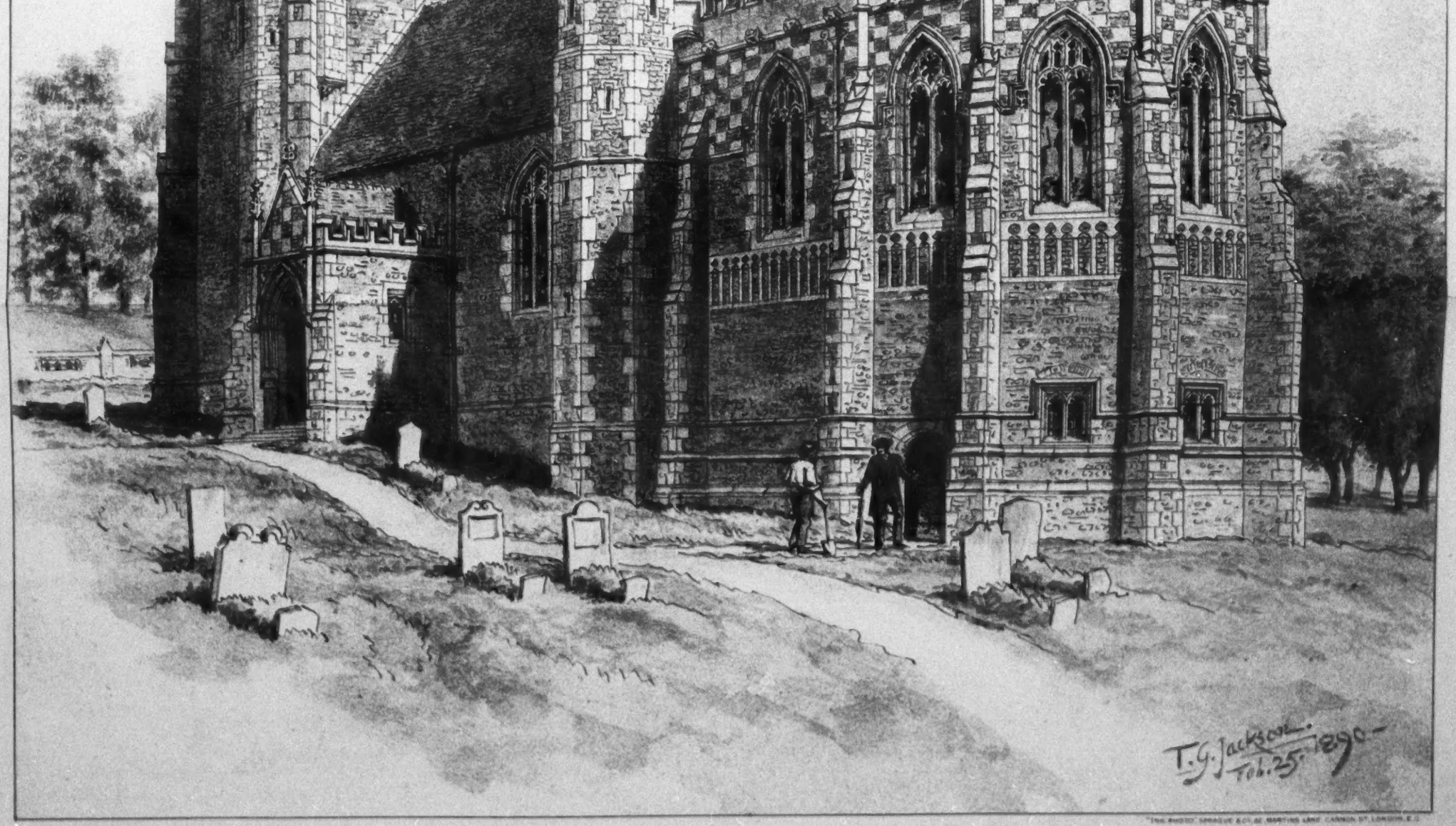


PHOTO-LITHO SPRAGUE & CO., 22, MARTINS LANE, CANNON ST. LONDON, E.C.

THE ABBEY CHURCH, ALTENBERG, NEAR COLOGNE.

THE ABBEY CHURCH, ALTENBERG, NEAR COLOGNE.





NORTHINGTON CHURCH, HANTS.—Mr. T. G. Jackson, Architect

No. 1769 Royal Academy Exhibition, 1890.

"INK-PHYTO," SPRAGUE & ST. 22, MARTINS LANE, CANNON ST. LONDON, E.C.

MUSIC.—Mr. E. Onslow Ford, A.R.A., Sculptor.

No. 2118 Royal Academy Exhibition, 1890.

LAUNDRY, ASKHAM HALL, YORK.—Messrs. Chorley & Connon, Architects.

LAUNDRY, ASKHAM HALL, YORK.—Messrs. Chorley & Connon, Architects.

PHOTO-LITHO. SPRAGUE & CO. 22, MARTINS LANE, CANNON ST., LONDON, E.C.

STABLES, ASKHAM HALL, YORK.—Messrs. Chorley & Connon, Architects.

No. 1827 Royal Academy Exhibition, 1890.

"INK PHOTO," SPRAGUE & CO., 63, MARTINS LANE, CANNON ST., LONDON, E.C.

DANCING.—Mr. E. Onslow Ford, A.R.A., Sculptor.

Exhibited at the New Gallery.

rest of the church, and was not completed until 1379. It contains a fine eight-light window, a double door, and is adorned with some good sculpture. The Cistercian order had by this time relaxed the severity of their rule, and thus we find statues attached to the doorway and figures in the stained glass. If the latter is in its original condition, the order had not gained much by this relaxation, for the glass of this window is the most inharmonious old glass painting we have ever seen, and very inferior in general effect to the beautiful grissaille of the other window.

The smaller abbey-church, or chapel, is a pretty twelfth-century building, well vaulted with a good western doorway; it is, however, no longer used for religious purposes. About half a mile from the Abbey is a very fine old grange, which formerly belonged to the abbots.

H. W. B.

NORTHINGTON CHURCH, HANTS.

THE church at Northington, near Arlesford, in Hants, of which the last remains are now being pulled down, was a modern structure of no particular architectural interest, though it was improved to some extent a few years ago by Mr. Butterfield.

The new church which will shortly be completed is designed by Mr. T. G. Jackson, and stands a few yards from the site of its predecessor.

It was begun by the late Lord Ashburton, who took the greatest interest in the work, but unhappily has not lived to see it completed, and it is now being finished by his executors. The walls are built with cement concrete constructed without the usual planking and bolts by building up an inner and outer lining between which the concrete was filled in. The inner lining where exposed is of thin Caen stone ashlar, elsewhere of concrete bricks, the outer is of flintwork with dressings of Chilmark stone from the Wardour bed. This work has been carried out without a contractor by the workmen of the estate under Mr. Potter, his lordship's clerk of works, who is well-known as an authority on concrete building.

The exterior flintwork is inlaid in various panels, finished flush with flat tracery of stonework, in the manner common in the Eastern counties, where the richest examples of flintwork are found.

The church, which seats 260, consists of a chancel, nave, and north aisle, with an organ-chamber eastward of the aisle and on the north of the chancel.

The rapid fall of the ground allows of a vestry below the chancel, which takes the form of an octagonal chamber, with a central pillar, from which vaulting of stone ribs, with panels of rubbed red brick and stone in bands, spring to the side walls.

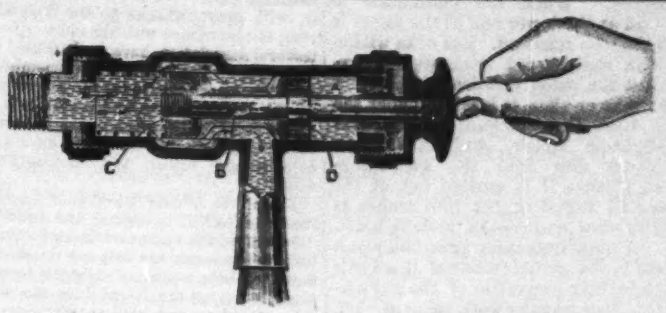
The six windows of the chancel and apse are filled with stained glass executed by Messrs. Powell from cartoons by Mr. H. E. Wooldridge. Each of the twelve lights contains the figure of an Apostle, one of them being a portrait of the late Lord Digby, father-in-law to the late Lord Ashburton.

The seating throughout the church is of black American walnut; the nave seats have traceried ends, with a carved panel containing heraldic and other devices, and the chancel-stalls have high backs and canopies and carved standard ends, in which are introduced figures of the four Evangelists and their emblems. The organ-case is of the same material, and overhangs the stalls on the north side.

The reredos is of alabaster, with a panel representing the Last Supper, under canopy work with carved and pierced cresting.

The following have been employed to carry out Mr. Jackson's designs:—Messrs. Farmer & Brindley for the carving, the marble pavement, reredos, and font; Messrs. Watts & Co. for the embroidered altar-cloth; Messrs. Hart, Son, Peard, & Co. for the wrought-iron altar-rail, an unusually elaborate piece of smith's work, and for the bronze lectern and eagle, the bird itself being modelled by Mr. George, of Messrs. Farmer & Brindley's. The organ is built by Mr. Martin, of Oxford; and the church is heated by Messrs. Haden & Son, of Trowbridge, under the direction of their London manager, Mr. Blake. The bells are being rehung, and two of them recast, by Messrs. Taylor, of Loughborough.

The illustration is from a drawing in the Royal Academy this year, where is also hung a view of the interior of the chancel.



Rigg's Automatic Self-closing Tap. (*See description below.*)

LAUNDRY AND ELECTRIC LIGHT BUILDINGS, ASKHAM HALL, YORK.

THE block of buildings shown in the illustration published this week is for the accommodation of the engines, dynamos, and accumulators required for the purpose of lighting the hall; and for the washhouse, laundry, drying-closets, &c., requisite in connection with the same. The architects for the buildings are Messrs. Chorley & Connon, of Leeds, who have designed them to correspond with the hall, recently completed from their darwings.

STABLES, &c., ASKHAM HALL, YORK.

THESE buildings, like the laundry ones, are built to correspond with the recently-erected hall. Of their kind they are very complete, providing accommodation for sixteen horses, with large coachhouses, coachman's houses, groom's rooms, hospital, machine and engine rooms, &c. The architects are Messrs. Chorley & Connon, of Leeds.

The drawing is exhibited in the Royal Academy of this year.

SCULPTURE: "MUSIC" AND "DANCING."

THESE two works in bronze, one of which is at present exhibited at the Royal Academy and the other at the New Gallery, are both the work of Mr. Onslow Ford, A.R.A., and though exhibited separately, are, as might be gathered from the identical design of the pedestals, companion works, and are executed for the Maharajah of Durbungah, Bengal.

They are certainly two of the most successful works in sculpture of the year, both in regard to ideal fancy and to sculpturesque style. In regard to the birds placed on the heads of the figures, which have puzzled some people, Mr. Ford tells us that the cockatoo was used for the dancing figure because it is a dancing bird: "The owl on the head of the other figure was intended to express solemnity, 'nocturne,' or anything else the reverse of gay." The wings drooping on either hand at all events add very much to the poetic and fanciful effect of the figure.

Mr. Ford suggests that a bird headdress may have been worn by some remote people, from which the metal bird headdress worn by Egyptian ladies may have had its origin.

RIGG'S AUTOMATIC SELF-CLOSING TAP.

THIS is a tap contrived to close automatically and without jar by utilising the water-pressure from the supply-pipe, a cushion of water being formed against which the valve has to close. The section shows the tap open and water passing, the "Cataract Chamber" A being filled automatically by water admitted along the central passage B in the spindle, which is always in communication with the supply-pipe. On releasing the finger the pressure on the greater area C overcomes that on the lesser D, causing the pipe to close automatically without concussion. A spring is provided in case of the pipe being empty or the pressure low; but the special advantage of this is that it depends on a power which in the normal state of the water-supply is always the same, and does not weaken by usage, as a spring must inevitably do. The agents are the Automatic Pipe Syndicate Company.

The Printing-machine Managers' Superannuation Fund.—The annual excursion in aid of this deserving institution will this year be run to Ramsgate, Margate, and Canterbury on Saturday, July 5.

INCLINED GAS-RETORTS.

THE automatic system of charging and discharging gas-retorts by gravitation attracted last week a large party of visitors to the Brentford Gas Works. That it should remain to be demonstrated at this day that there is great advantage and economy in setting the retorts for distilling the coal at an angle, so that the charges may slide down into them,—and that such an arrangement is a novelty,—does not seem to indicate any remarkable amount of inventive, or even engineering, genius in several generations of gas engineers and managers. Clay is said to have tried it in 1803, but no one seems to have accomplished it before Coze, the Frenchman, at Rheims, in 1885,—some five years ago. Everybody knew that masses of material once set in motion have a tendency to come to rest at some particular angle which varies with the form, weight, and other characteristics. But no one during ninety years of gas industry has substituted this simple means for the old horizontal setting in the loading of the retorts by long scoops, containing about a hundredweight of coal borne on men's shoulders and launched thence into them with much scorching labour and fatigue. Instead of a special angle being needful for each kind and dimension of material, it is found that in practice an angle of 30 degrees will serve for all kinds of coals and sizes. This simplification is important, and bases the rest of the processes upon a tangible foundation. Last year further improvements, in the setting of the retorts, by which the cost of erection is much reduced and also in the mechanical means of charging and discharging, were effected by Messrs. Morris & Van Vestrant. These improvements are embodied in the portion of the Brentford Works which have been fitted up on the new principle.

The ordinary horizontal retorts there are 20 ft. long, and are charged at both ends simultaneously, six men being engaged in the operation,—some minutes being frequently taken to perform it. These men must be of strong physique, and trained to work skilfully together. A deficiency on the part of one man may tend to the injury of another, and the training required for the filling of the retorts by the shoots, evenly and properly from end to end, is not attainable without experience. Thus it is difficult always, and sometimes in emergencies impracticable, to fill the places of men falling out through illness or disagreements. For the higher reasons of civilisation the new system deserves encouragement, in that it obviates the need for arduous toil.

The new system is worked in the following way at Brentford:—The coals are elevated to a platform at a convenient height above the retorts; and the charge of 7 cwt. is put in a truck which moves along a line of rails. Under this platform also are movable vertical tubes or shoots, telescopically adjustable to the different levels of the mouths of the upper ends of the retorts. The charge of coals is injected into the shoot from the truck by the withdrawal of a slide. In their descent the coals acquire sufficient velocity to overcome the tendency to rest on the slope of the retort, and, consequently, they travel downwards along its floor until arrested by a stop-piece, which is inserted in the lower end of the retort before closing the lid. The front portion of the charge being thus arrested, the remainder is gradually brought to a stand in succession, the whole charge being so regularly distributed that the retort will contain one-seventh more than the ordinary quantity. The charges can be shot in far quicker than they can be put in by the old hand proceedings—from five to seven seconds sufficing. When charged the retort lid is closed, and the carbonising goes on in the usual manner, but in

superior degree. When the distillation is effected the lid at the lower end of the retort is opened and the stop removed. The coke within is now seen in radiant red heat, slightly expanded against the sides, sufficiently to hold it up. A light rake or slice is inserted under the coke, which then slips forward rapidly with but the slightest labour, and falls down in a continuous flow into the quenching-vault below, whence it is carried out of the retort-house and stored or put into trucks as required. The wear and cost of tools is much diminished. A most important practical result of the system is the greater control it affords over the illuminating properties of the gas produced,—in this, that no gang work being needed, the time of carbonising can be shortened optionally to any extent in lieu of the ordinary six hours' work. Thus, a more highly carburetted gas can be secured by sacrificing the weak carbonic oxide and marsh gases given off towards the end of the six hours' charge. In foggy weather, also, by thus shortening the time of distillation, one quarter more gas can be made in the same retorts, provided the heating is kept up; which, where gaseous fuel is used, as it is at Brentford, is very easily accomplished.

CASE UNDER THE METROPOLITAN BUILDING ACT:

NEGLECT TO GIVE NOTICE TO DISTRICT SURVEYOR.

THE case of the District Surveyor for East Hackney North *v.* Anthony & Co., Limited, was heard in the North London Police-court on the 12th inst., before Mr. Montagu Williams.

The defendants were summoned for neglect to give notice. They had recently erected on the front of the Old Town Hall, Hackney, two wooden advertisement framings, each measuring about 18 ft. by 12 ft., supported on wood brackets driven into the wall and fixed with iron holdfasts, some with and some without screws.

The District Surveyor relied on sections 9 and 14 and section 26, rule 1.

The defendants, by counsel, contended that the Building Act was only intended to apply to what was a permanent part of a building, and not to such temporary things as advertisement-boards and brewers' signs.

The defendants were ordered to pay a penalty of 10s. and 12s. 6d. costs, the Magistrate refusing to grant a case.

THE PRESENT POSITION AT THE ARCHITECTURAL ASSOCIATION.

SIR,—I wish to ask for the opportunity of urging that further and calmer deliberation should be given by the members of the Association to the proposals of the now lapsed Committee on Education. An unusual amount of controversial heat has been engendered at the last few meetings on the subject, and almost angry looks have been exchanged between nearly equally-matched bodies of supporters. The Session, according to the rules, lapsed with May, and in the season of evening tennis and boating and, let us hope, of sketching, it will be difficult to fairly obtain the opinion of the great body of members. Surely the present constitution of the Association is good enough to last until the cooler days and longer evenings of autumn, for we should not be forced to suppose that more time and thought must be prejudicial to the new scheme.

The rules must be carefully readjusted and the constitution re-drawn before the alterations can become operative, and unless the new army of lecturers at "31s. 6d. per lecture" are already engaged in preparing their syllabuses, nothing can be done before the next brown-book goes to press in August.

Two things have to be done if the Education report is to become the new constitution of the Association—each independent of the other, but strangely linked in the amateurish report of the committee. The first is to substitute an architectural paid "dominie" for a real architect in practice as a voluntary teacher, and to publicly (and I urge the importance of full consideration by the profession of this point) disown and discredit the pupilage system, which, after all that can be said against it, has produced the Architectural Association and a National School of Architecture that for extraordinary vigour and freshness is unrivalled in the records of the century.

The second point is that the Association is to have a purge of a drastic character. After having in a course of undeterred progress advanced to a membership of over 1,000 members, the subscription is to be doubled, and the hands of the clock put back into darkness, as far as progress in membership is concerned. Do the members who have built up the Association realise this? The reason given is that the work of the Association is so great that more money must be paid for secretarial assistance, &c. No doubt this is true, and I admit it, with hearty thanks to the honorary labourers who, in accordance with the old *motif* of the Architectural Association, have worked hard and lovingly for no pay. But it should be remembered that last year the Association spent *one quarter* of its income on the conversazione and soirée, and that if the expenditure on these heads was limited to 50*l.*, the 150*l.* requisite would be found for further clerical help without raising the subscription and "the wind."

There has seldom been wanting, either in the Institute Council or among the Presidents of the Association, the expressed desire to bind the junior body to the senior one in some satisfactory manner that shall be a source of strength to both. May I suggest that as the Royal Institute are enlarging their premises, and have an efficient official staff, that the office and gallery, rent and clerical expenses of an honorary and mutual body like the Association might be eased by some paternal help? It is idle and—like other ideas floating in the minds of some "A. A." orators—childish to expect the Institute to become the body to teach architecture, or to make grants for paying masters for the young in the art, but the nature of official and clerical help is very different, and could with dignity be asked for and with grace given; and as guineas and their halves are considerations to young architects, the Royal Institute of British Architects will be likely to gain more recruits for the Associateship at 2 gs. with the "A. A." subscription at 10s. 6d., than if the latter is doubled.

I hope that those senior members who expressed the hope that an adjournment of the battle might be made till next session will be supported at Friday's meeting, and that their request may prevail. A. BERESFORD PITE.

June 17, 1890.

THE OLD NAVE, ST. SAVIOUR'S, SOUTHWARK.

SIR,—In reference to a letter on this subject by Mr. Garbett, which appeared in your issue of May 24, July 29, 1839, is the date on which, according to the article on "St. Saviour's, Southwark," in the current *Quarterly Review*, the first stone of the new nave was laid by Bishop Sumner, of Winchester. It is hardly likely that there is any error as to this date in an article so carefully written, and evidently with access to original parochial memoranda. The same article states that in 1838 "the old nave was levelled to the ground." If we interpret this as meaning that the work of destruction was begun in that year, the building could hardly be described as "untouched" in July, 1839, the month in which the rebuilding commenced.

The first stone would certainly not be laid until the ground had been cleared for the builders' operations. Is it possible that Mr. Garbett, writing after the lapse of half a century, has made a very natural slip in the date of his first visit to St. Saviour's? He is certainly in error as to the south porch, the existence of which he questions. That there was one, attached to the second bay from the west on the south side, is absolutely certain. I saw it hundreds of times before its demolition, which I witnessed with bitter grief. It is exactly reproduced in Sir Arthur Blomfield's design for the rebuilding of the nave. Mr. Garbett is quite correct as to the western entrance, which was a very beautiful example of Perpendicular work, with richly-carved oaken doors (can any one say what has become of them?), as depicted in Pugin's "Specimens," vol. ii., plate xvii., K*. Mr. Garbett's reference is accurate, but he has been misled by the asterisk. The note referring to "Briton's Architectural Antiquities," vol. v., belongs to the preceding paragraph describing Iffley Church, of which "a ground-plan and five plates," as stated, will be found in that work. The explanation of the misleading asterisk is this:—Each plate has two signatures, one in Roman numerals at the upper right-hand corner; one in Roman capitals at the lower. The plates being more than fifty in number, one alphabet would not suffice, and a second was used, distinguished from the first by an asterisk—A*, B*, K*. EDMUND VENABLES.

A PLEA FOR THE IMPROVEMENT OF SIX- AND EIGHT-ROOMED HOUSES.

SIR,—"Pray, Goody, moderate the rancour of your tongue. Why flash those sparks of angry fire from thine eyes?"—they quite obscure thy vision. Corridors in my proposed houses need not be dark; glass in upper parts of partitions and over-doors would obviate that, and are usual expedients. Corridors in large city buildings and in hotels, say the Grand Hotel, Paris, nearly as long as streets, are dimly lighted only, and many approve; evidently a delusion. However, Knightley can't do it. Pite can, and (very good of him) shows his model, which he modestly calls a "casual." Eighth scale gives 18 ft. frontage (very usual width), back parlour well lighted, kitchen 9 ft. by 8 ft., dear little place; rather tropical, large jambs for kitchener; dresser, table, two chairs, three persons seated in kitchen, two on chairs, one on fire or table. Scullery, 7 ft. 6 in. by 4 ft. 6 in., no copper (useful article, though, but then at times makes steam, so leave it out); back w.c. in direct line of passage, gross and palpable to visitors, who might say, "How very convenient."* First floor, two bed-rooms 8 ft. wide; don't see where to put bed; front room very good, but one bed-room short allowance; dressing-room dispensed with; pity this; fellow likes to keep brush, comb, and towel to himself; water-closet instead (this over hall—thought it a sunk porch); music of machinery to amuse callers whilst waiting. In case of w.c. overflowing, pretty good benefit for heads of folks in hall (alias sunk porch).

First-floor plans in time for next week, and then from me nothing more. T. E. KNIGHTLEY.

SIR,—I quite agree with Mr. William A. Pite [p. 437, *ante*], that the casual suggestion he has lightly thrown off and published in your last number goes far to show that the "everlasting plan" of the six and eight-roomed houses with which we are so familar, should not be hurriedly condemned, for it is evident from Mr. Pite's plan that the jerry builder has been merciful and spared us in many things.

He does not, for instance, place the drawing room door immediately facing the fire-place, so that anyone sitting in front of it would be seriously inconvenienced by it, nor does he increase the evil caused by the dining-room window being forced into the corner to a greater extent than necessary, by putting the widest room in the rear. He has contrived for us a narrow stair, but a well-lighted one, delivering towards the front door and public rooms. We can see by Mr. Pite's sketch how the staircase *might* descend into inner darkness, and the kitchen lobby, while securing sometimes with a little more light a pleasing vista through kitchen and scullery to w.c. in rear; how the kitchen which everyone says is too small at present might be made still smaller, being half the size of the "dining-room;" how the cost of the house, and, therefore, its rent, could be increased by adding another 4 ft. to the depth for a cross-passage, lady's store, and glass pantry, which would certainly be ample for the occupant's requirements in that way. It also shows how the w.c., which present sentiment consigns to a back place, could usurp the position usually allotted to the good-man's dressing-room, and could be made quite a feature in the front elevation; how the door in the adjacent bedroom could be put in the wrong wall and hung in the wrong way; how to make one of the back bedrooms still more uncomfortable by a novel arrangement of door, window, fireplace, and cupboard. It also exhibits clearly how our builder, if he forgot scale and dimensions, could produce still more wonderful effects in tight places; see the larder and the scullery, where a copper *might* be easily omitted.

Sir, if we look for improvement it must not be from casual suggestion. I am well aware of the difficulty of improving upon a plan which is really the result of a long evolution; but Mr. Knightley's plan (though open to criticism in some respects) yet makes an advance which should be considered. I am sure he deserves our thanks for placing his ideas at our service. W. D.

JUNCTION OF SOIL-PIPE WITH DRAIN.

SIR,—On p. 437 of the *Builder* for June 14, Mr. Frank Caws begins his letter on this subject by saying:—"I desire to draw attention to a danger and evil which seems to have escaped the notice of sanitarians"; and he goes on to explain that the discharges falling down inside high vertical soil-pipes, and striking the fire-clay bend at the bottom, by-and-by disturb the bend and cause leakage of its joints, on account of this bend not being properly supported or bedded.

Now, sanitarians and practical plumbers did *not* allow this to escape their notice, for, as far back as twenty years ago or so, I published that when of iron this bend at the bottom of the soil-pipe should have a strong iron stud or heel below it, which heel was to be made to rest on a solidly-laid stone, so that it could not be moved. When of lead this bend was to be otherwise firmly fixed.

I do not approve of the bend at the bottom of the soil-pipe being of either fire-clay or stone-ware, or of "earthenware," as Mr. Caws terms it. This bend should be part of the soil-pipe, and not part of the drain.

I do not believe a properly set and properly cement-jointed fire-clay bend, bedded on clay, would give way as Mr. Caws says. I support his idea of bedding the socket end of the drain-pipe in cement or concrete. This is an old practice with me. W. P. BUCHAN.

IRON BUILDINGS AND LIGHTNING.

SIR,—In answer to your correspondent "J. Arthur Wallington," who inquires [p. 421, *ante*] as to the effect of lightning on iron roofs, and whether a corrugated iron house is liable to suffer from lightning, or whether it would act as a conductor, I beg to refer him to the "Report of the Lightning Rod Conference" (London: E. & F. N. Spon,

* There are two doors between it and the visitor, however.—ED.

1882). That Conference consisted of delegates from the Meteorological Society, the Royal Institute of British Architects, the Society of Telegraph Engineers and Electricians, and the Physical Society, besides two co-opted members, Prof. W. E. Ayrton, F.R.S., and Prof. D. E. Hughes, F.R.S. On p. 70 of that Report there will be found an abstract by Prof. T. Hayter Lewis of "Instructions" issued with the "Army Circulars" of May 1, 1875, "as to the application of lightning-conductors for protection of powder magazines, &c." In his abstract of these instructions, Prof. Lewis says:—

"The principles adopted by Sir W. S. Harris, as shown in Appendices A and B to this paper, are still held to be sound. . . . .

Iron verandahs and railings are good conductors when with good earth connexions.

Iron buildings are good conductors. But if covered with asphalte, concrete, &c., rods or points must be provided, projecting above asphalte, &c., and with good earth connexions."

In the Appendix A, just referred to, the late Sir W. Snow Harris, F.R.S., says:—

"Electricity when confined to substances resisting its progress, as air, glass, dry wood, stones, &c., exerts a terribly explosive power.

But when confined to bodies, such as metals, offering small resistance, its violent expansion or disruptive action is greatly reduced, or avoided altogether, and becomes a continuous current comparatively quiescent. But if a body be small, as wire, it may be heated or fused. Resistance is so small that a shock has traversed copper wire at the rate of 576,000 miles a second; resistance increases with length and diminishes with area of section of conductor.

So a building metallic in all its parts, or a man in armour, is safe. . . . .

It follows that a magazine if of metal would be safer than if built in the usual way."

These *dicta* of Sir W. Snow Harris would seem to be confirmed by the following paragraph from the current number of your contemporary *Iron*:—

"THE EIFFEL TOWER IN A THUNDERSTORM.—From recent experience during thunderstorms, the Eiffel Tower at Paris seems to be proof against lightning. On one occasion it was subjected to a remarkable bombardment from aërial electricity, being struck by lightning no less than six times in eleven minutes. Three of the flashes are said to have reached the top of the conductor simultaneously, resulting in a remarkable display and considerable vibration on the part of the big iron frame. A rattling of the metal was heard, but no apparent damage was done."

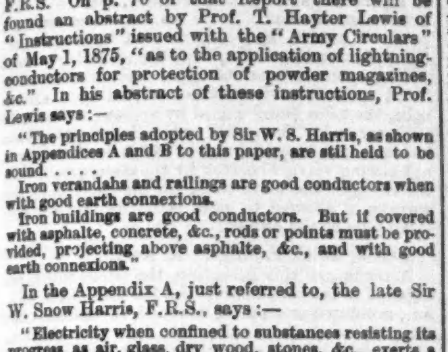
The "Report of the Lightning Rod Conference" is not as well known as it should be to architects and builders. It is well worth their attention, the conclusions of experts on a matter of great importance to the protection of life and property being very clearly and succinctly laid down in it.

London, June 18. Δ

*** In reference to the quotation from *Iron*, it must not be forgotten that the Eiffel Tower, though of iron, is fully furnished with special lightning-conductors.—ED.

THE WOODEN WATER-PIPES FOUND AT BELFAST.

SIR,—The wooden water-pipes found in the Fountain at Belfast [see pp. 404, 420, 438 *ante*] were in lengths of about 9 ft. each. We took up three lengths; they were 9 in. in diameter, and the timber is quite sound. There is a waterway 3 in. in diameter through them, and they are jointed



(fig. 1) by simply opening one end a little wider and cutting away the other to fit in (but with *no* iron rings). The one end of this stretch of pipe was connected into a junction 8 ft. long, 12 in. by 12 in., with a 5 in. diameter waterway through same (fig. 2). This square pipe had several connexions, one at right-angles each way (fig. 3), and one for up-stand, which was likely used for supplying some of the old fountains. It was closed up at one end and open at the other. This seemed only to be a junction for connecting the pipes.

Belfast. W. M'CAMMOND & SON.

SYMBOLISM OF THE PASTORAL STAFF.

SIR,—With reference to Mr. Littlehales' letter [p. 438, *ante*], my own impression is that the examples mentioned are only exceptions to the rule.

The carelessness of sculptors may be answerable for these deviations. It has just been my lot to behold at Farleigh Castle (Wilts), a seventeenth-century effigy represented in armour of the fifteenth. J. BAGNALL.

CHURCH BUILDING NEWS.

Burnham Thorp.—An influential committee has been formed, with the Prince of Wales as chairman, and comprising some distinguished naval officers, for rebuilding the parish church of St. Peter's, at Burnham Thorp, Norfolk, after the designs of Sir Arthur Blomfield. This church, which was repaired and beautified fifty years ago, consists of chancel, nave, north aisle, and western tower, mostly in the Perpendicular style. It contains some memorials of Lord Nelson's family, including a tablet to his father, who was rector here; and a brass, representing Sir William Calthorpe in a complete suit of chain armour, with inscription and date, "1420."

Denton.—The Church at Denton, in the diocese of Durham, which was only built in 1830, on the site of an ancient church, is now being demolished, and a new and more substantial fabric erected in its place in the Early English style. It is to consist of nave, chancel, south porch, vestry at west-end, and organ-chamber on south side of chancel. The walls are to be faced with random blockers from Houghton Bank, lined with buff-pressed bricks from Normanby, the internal panels and arches being of stone. The pulpit, choir-fittings, reredos, and chancel screen are all to be of Austrian oak, the rest of the woodwork being of pitch-pine. The gangways and chancel are to be paved with Mosaic tiles, the rest of the floors being laid with wood blocks. The windows are to be glazed with cathedral-tinted glass, having coloured roundels and margins. The warming is to be by hot water, and the lighting by coronæ. The architect is Mr. J. P. Pritchett, of Darlington.

London.—The new Church of the Holy Trinity, Sloane-square, Chelsea, was consecrated on the 13th ult. It replaces an old and smaller structure, and has been erected at the cost of Earl Cadogan, the congregation and parishioners providing the amount required for the fittings. It is stated by the *Guardian* that up to the present time 22,000*l.* has been spent, but before the church is completed the total sum will probably reach 35,000*l.* Internally the church is 150 ft. long by 40 ft. 9 in. wide, and 60 ft. high. In plan the church is a parallelogram, with narrow but lofty aisles, and on the north side are the morning-chapel and organ-chamber. Within the wall arches are the clearstory windows, and below the springing of the arcade a deep frieze, which is carried throughout the length of the church, and which is intended to be decorated with a series of subjects illustrating our Saviour's life, for which sketches have been prepared by Mr. Burne Jones. The spandrels of the nave arches are filled with tracery panelling, with large medallions intended to contain figures of the Prophets, which are to be executed by Mr. Armstead, and upon the face of the piers are to be figures of the twelve Apostles, for which sketches have been prepared by Mr. Hamo Thornycroft. The chancel, which is of the same width as the nave, is separated from it by a low screen of green marble. A flight of white marble steps leads from the nave level to the chancel floor, which is paved with black and white marble. On the right and left of the entrance are two pillars of green marble, on which are seated bronze angels bearing scrolls. The chancel gates and side wings are only partially executed. The chancel stalls are of novel design, and show the unusual admixture of beaten and cast brass panels with oak stained a dark colour. In the panels are a series of angels holding inscribed scrolls. There are also large panels representing David and St. John the Divine. The figures, both upon the screen and the stalls, are the work of Mr. F. W. Pomeroy. The altar, which is 12 ft. long, is internally of oak, and has a marble front, in which occurs a carved panel showing the entombment, by Mr. Harry Bates, of which the model is to be seen in this year's Royal Academy Exhibition. The pulpit is formed of white marble with coloured panels, supported on columns of alabaster and red marble. The panels are to be enriched with metal reliefs by Mr. Alfred Gilbert. At the west end of the morning chapel is the font, the bowl and shaft of which are made of Mexican onyx, supported on steps of golden veined marble. On the shaft of the font is a band of cherubs holding scrolls, the work of Mr. F. Boucher, under the direction of Mr. Onslow Ford. At the east end of this chapel is a marble reredos, above which hangs a piece of tapestry work executed by Morris & Co. The front of the altar in the Morning Chapel, which is being painted by Mr. Reynolds Stephens, represents the homage of the nineteenth century to the Saviour. The design shows a figure of the infant Saviour and His mother, before which kneel the figures of typical men of the time, such as Gordon as a soldier, Damien as a martyr, Selwyn as Bishop, Browning as poet, Lowder as priest, &c. The church is lighted with electric light, the fittings having been made from the architect's design by Messrs. Longden & Co. The lights are enclosed in wrought iron lanterns, which are surrounded by filigree work of wrought iron gilded. The wiring and other details have been carried out by the Brush Electric Supply Corporation. The architect is Mr. J. D. Sedding, and the works have been carried out under his superintendence, assisted by Mr. E. H. Sedding. Messrs. Higgs & Hill were the general contractors, their foreman being Mr. Swain. The following illustrations of the church have appeared in the *Builder*, viz.: A large view of the interior and a perspective view of exterior, on October 6, 1888; one bay of nave arcade, October 12, 1889; sketch of chancel, January 4, 1890.

PROVINCIAL NEWS.

Northampton.—A good deal of new building has been done here recently, partly for some of the London shoemakers, who, finding that ground can be purchased at about one shilling per square foot, have run up a number of new factories, although, perhaps, not quite so substantially as this description of buildings would be erected in London, Manchester, or Leicester. The architects are, for the most part, beginners in practice, among them Messrs. Brown & Fisher, of Wellingborough, the following being some of their works:—Messrs. Stimpson's factory, Abington-street, just commenced; Messrs. Crockett & Jones's shoe factory, Mageestreet; builder, Mr. Wingrove. Heating and ventilating by Mr. B. F. Sturtevant, of London. The building is built of red bricks and Bath stone. About ten other factories have been designed by the same firm, also a bank in Mercer's-row. Messrs. Holding & Jeffrey are making extensive additions to the Town-hall. The "Dolphin Hotel" is being rebuilt by the Northampton Brewery Company, from the designs of Messrs. Brown & Fisher. Mr. Hull has added an extensive wing to the Convent School, Abington-street. Messrs. Ingram & Shaw have nearly completed the new Masonic Hall, Albert-street; also a very handsome building as a shoe factory close by. Within the last four years several extensive estates by the race-course have been covered with about 800 or 900 houses and shops. Several new villas have been erected round the racecourse, but owing to the utter disregard one architect or builder has for the designs of his neighbours, the grouping is anything but agreeable.

Prescot (near Liverpool).—A new gymnasium, club-house, and coffee tavern are being erected at Prescot from the designs of Mr. Thomas W. Cubbon, architect, Birkenhead, for Miss Ruth Evans, of Rainhill and Rhyl. The buildings will include a public gymnasium, 51 ft. by 21 ft., having dressing-room and all necessary conveniences attached; billiard and reading-rooms, with lavatories and cloak-rooms, &c.; coffee tavern, consisting of large refreshment-room fitted with serving-bar, seats and tables, bicycle-shed, verandahs, &c. The buildings, which will be Gothic in character, will be of two stories high, and faced externally with red sandstone from local quarries. All internal woodwork will be of pitch-pine varnished. The whole of the buildings are being erected by Messrs. Hughes & Stirling, contractors, of Bootle-cum-Linacre and under the supervision of the architect.—A new public swimming-bath, designed by the same architect, is now in course of erection at Prescot, for Miss Ruth Evans. It consists of swimming-bath room 50 ft. by 23 ft., having eleven dressing-boxes, all being fitted-up in the best style, and with all modern conveniences and fittings. The design is Gothic, all the external walls being faced with local red sandstone, the internal walls faced with selected bricks, the sides of bath lined with white glazed bricks, and the bottom laid on concrete bed with heavy white tiles, all set in cement. The internal woodwork is of pitch-pine, varnished; roof-lights glazed with Hartley's rolled plate, and slated with Vellenhelli slates. Movable Louvred ventilators, which may be opened and closed at will, are provided in the roof. The

contract is being carried out by Messrs. Hughes & Stirling, under the architect's superintendence.

Ripon.—Messrs. W. Lewis & Son, architects, have just completed considerable improvements to Grantley Hall, and other work on the Grantley estate, near Ripon, for the Right Hon. Lord Grantley. Other work is in progress and contemplation to generally improve the estate, from the plans and designs of Messrs. Lewis & Son.

The Student's Column.

ELECTRICITY, MAGNETISM, AND ELECTRICITY SUPPLY.—XXV.

METERS.

IN some districts it is the custom to charge for electricity supply at so much per lamp, or other piece of apparatus, per annum; but a far more satisfactory way is to meter the B.T.U.'s which are used in a building, by placing some form of electric meter where the street mains are tapped for the local supply current. The following properties of the electric current can be used for the purpose of metering (i) the decomposition of a compound conducting liquid, (ii) the rise in temperature of a conductor, (iii) the field of force produced. A meter may measure either coulombs or joules. If a building is supplied under constant E.M.F. the coulombs alone need be recorded, for if their number be multiplied by the E.M.F. the joules are at once obtained; again if the current be constant but the E.M.F. be varied the meter is placed as a shunt across the house mains, and so arranged that the current which flows through it shall be proportional to the E.M.F. between the terminals; in this case also the coulombs registered, multiplied by some number, will give the joules used.

Meters, based on the fact that if a continuous current be passed between, say, two plates of metallic copper immersed in a solution of sulphate of copper, a definite weight of copper will dissolve from the positive plate and deposit on the negative, for every coulomb that passes, irrespective of the current, have long been employed. Among early meters of this kind may be mentioned those of Edison and of Wright. An ingenious modification was introduced for use with an alternating current by Lowrie and Hall. If an alternating current be passed through an ordinary depositing cell, there would, as a whole, be no change in weight of either plate because as many coulombs would pass in one direction as the other. The inventors therefore put a charged secondary cell in series with the depositing cell; as a result, the current is helped in one direction but opposed in the other by the E.M.F. of the cell, and the excess of coulombs in the direction of this E.M.F. is recorded, its proportion to the whole number of coulombs passed being easily calculated. A practical defect in all meters of this kind is that the plates have to be periodically removed and weighed; a consumer cannot see on a dial the number of B.T.U.'s he has used at any time, in the same way that the number of cubic feet of gas passed through a gas meter can be determined by mere inspection.

A meter introduced by Professor George Forbes is equally efficient for either continuous or alternating currents, as its action depends upon the heating of conductors by an electric current. A number of wires connect together two horizontal concentric rings, and the heated air which rises from this arrangement, fig. 67, impinges on little mica plates set at an angle of 45 deg. round a horizontal mica disc. This disc and its vanes revolve like a windmill, the number of revolutions made being recorded. The whole is placed under a glass shade to prevent disturbance from external currents of air.

Fig. 67.

Dr. Aron's meter, which is very largely used, consists of two pendulum clocks timed to go at exactly the same rate, and geared to a dial so that one clock train undoes the record of the other. One pendulum has its rate of vibration changed by a field produced by the current or currents passing through coils, and it is this *change* of movement which the dial records.

Other meters, too numerous to mention by name, are simply little motors whose rate of revolution is made to vary directly as the current, and the work they do is to turn round the index on the recording dial. When these motor-meters are used for the alternating current, the alternating current in the field coils induces currents in a short-circuited armature, so that nothing of the nature of a commutator is required.

SWITCHES.

It is absolutely necessary to be able to stop at any moment the current in any main or branch, and for this purpose the continuity of the conductor carrying the current is broken. A switch is an arrangement by which a removable part is introduced into any circuit, and when a large current is flowing under a high E.M.F. there is danger of an arc forming at the break across the gap made, for the reasons already explained in connexion with fuses.

The means adopted for getting over the danger of arcing in a switch are to introduce breaks simultaneously in two places, and to make the separation so rapidly that sufficient heated vapour cannot be produced to form the arcs. Fig. 68 represents an exceedingly simple, but very effective, main switch. The current is

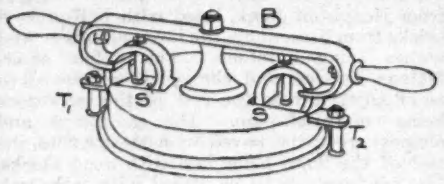


Fig. 68.

led across a bar of brass or other metal, B, bent over at the ends and gripped by two split rings, S S, which can be tightened to any desired degree by means of nuts, and the separated ends of the main cable are connected to these rings, through the terminals T_1 and T_2. Some little force is required to release the bar from contact with the rings, and when they do let go it comes away with a jerk, so that the circuit is broken in two places with great rapidity. A switch must be constructed so as to make it impossible to leave it "partly on," that is making loose contacts, which, while allowing the current to pass, introduce a high resistance, and cause heating to a dangerous degree. A spring therefore, always acts, to pull the bar out of contact, so that, unless it is tightly gripped, it will not stay in a position to let the current pass.

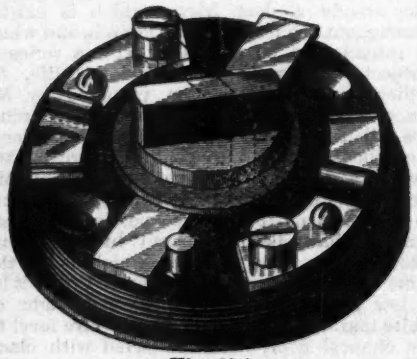


Fig. 69.*

A similar kind of switch is shown in fig. 69, suitable for single lamps or small groups of lamps. The bar is kept away from the clips by a spring, unless held tightly by them. The handle, which is held in place by the cover (not shown in the figure), is not in any way attached to the bar, and is cut away underneath, so that on turning it through a fairly large angle it will touch the bar on one side or the other; the handle turns the bar until the clips loosen their hold, and are unable to resist the spring, when it flies out rapidly and slides away independently of the handle. As an arc does not form when contact is made, in neither form of switch need contact be made with such rapidity. Any switch in which the current passes on to the arm through the pin about which it turns should be avoided, and the material on which the working parts are mounted should be uninflammable.

Surveyorship, Banbury. — Mr. S. E. Burgess, Assoc.-M. Inst. C.E., Assistant Borough Surveyor of Stockton-on-Tees, was last week appointed to the position of Borough Surveyor of Banbury, Oxon. There were ninety-three applicants for the post.

* The block for this figure has been kindly lent by Mr. F. G. Hart, of Westminster.

RECENT PATENTS.

ABSTRACTS OF SPECIFICATIONS.

10,237, Syphon Flushing-cisterns. T. Deeley.

This invention has for its object the production of a perfect water-waste preventer, combined with a noiseless flusher. It is an improvement on a previous patent, and consists of a long and short leg syphon arrangement, with the short leg or inlet passage pierced near its upper end, over which is fitted a flexible sleeve-valve carried by a sliding tube, the tube being raised by a float connected at its lower end. The outlet or long-leg of the syphon has an open-topped branch which is closed by a self-closing valve, operated by the cistern-pull. By the rising of the valve water for the creation of the vacuum is allowed to pass into the long-leg and down pipe of the cistern.

10,386, Brick Facings. R. Kerr.

According to this invention, the bricks which are exposed to the surface and form the face of the wall, &c., are fluted or rippled, rounded, or indented for the purpose of distributing the light by reflection. The surface is also sometimes composed of special materials, pottery, glass, &c.; or the outside surface of the bricks are highly glazed in order that light may be reflected from them.

10,463, Cupboard-turn or Door-fastener. W. Douslin.

In place of the ordinary latch with a square socket-hole, and held upon the spindle of a cupboard-turn by means of a nut,—which frequently works loose,—according to this invention a latch is mounted upon a spindle of nearly square section, upon the corners of which spindle a screw-thread is formed and this spindle is fitted into a knob. A set-screw passing through a slot in the spindle enables the latch to be screwed up to the side of the door.

10,900, Liquid Glue. W. G. Richardson.

This invention refers to a liquid waterproof glue, prepared by dissolving gum-shellac in spirits of wine, naphtha, &c. This glue is not soluble by either water or heat.

3,776, Sash Fastener. W. J. Ingram.

The fastener which is the subject of this patent is a sliding-bolt attached to a spiral spring, which, when locked, throws the bolt back, enabling a projection to enter a groove towards the front. To unlock it the bolt must be pushed in so as to disengage it from the groove, then turned half round, when the spring will throw the bolt back. This bolt is made to pass between two lips on the bottom sash, and through a tongue on the top sash, the tongue passing between the two lips. This tongue is screwed on the edge of the meeting-rail in addition to the surface, which renders it impossible to cut the bolt or open the sash without breaking the glass.

NEW APPLICATIONS FOR PATENTS.

June 2.—8,488, J. Andrews, Screws, Screw Nails, &c.—8,498, J. & O. Macfarlane, Sewer Gas and Sewage.—8,512, R. Leslie, Stair Treads.—8,519, C. Prinz, Manufacture and Treatment of Cement.—8,521, J. Wallace, Kitchen Ranges.

June 3.—8,542, H. Farmer, Self-closing Hinge for Doors and Gates.—8,555, T. Garlick, Check or Stop for Sash Windows.—8,558, W. Coulson, Metallic Frames and Supports for Glass and other materials of Greenhouses, Roofs, &c.—8563, E. White and J. Boyd, Brick-making Machines.—8,586, F. Egleton, Ranges and Stoves.—8,604, C. Shepherd, Valves for Soil or Sewer Pipes of Dwellings.—8606, S. Byran, Treatment of Slag for the Manufacture of Building Blocks, &c.

June 4.—8,644, W. Cockburn, Securing Door Knobs to their Spindles.—8664, C. Patchett, Window Fasteners.—8,668, B. Piffard, Varnishes.

June 5.—8,682, G. Calvert, Chimney Pot.—8,705, C. Bischoff, binding Plate for Brick and other Walls.—8,723.—G. Ollier, Fire-resisting Cements.

June 6.—8,732, H. Hearn, Spring Window Sash-fastener.

June 7.—8,801, J. Curr, Composition for Covering Walls, &c.—8,817, K. Radler, Hinges.—8,818, J. Manley, Construction of Baker's Ovens.—8,825, A. Gower, Ventilating Tile.—8,839, J. Bürde, Window-fastening.

PROVISIONAL SPECIFICATIONS ACCEPTED.

5,977, C. Wright and J. Mackinlay, Stove Grates, &c.—6,196, W. May, Glazed Bricks and Tiles.—6,225, T. Street, Flushing Drains and Sewers.—6,265, C. Orr, Door-closing Apparatus.—6,429, J. Vicars and Others, Baker's Ovens.—6,805, W. Thompson, Paints, &c.—6,999, W. Lancaster, Bevels.—7,306, J. Boustead, Paint and other Brushes.—7,401, M. Webb, Floral Decoration Silvered Plate Glass.—7,657, W. Gale, Ferule or Collar for Painters' Brushes.—7,745, W. Lambert, Nails.—8,008, J. Cowley, Nails.

COMPLETE SPECIFICATIONS ACCEPTED.

Open to Opposition for Two Months.

9,486, S. Wilson, Dies for Bricks.—4,085, G. Lawrence and A. Ranyard, Closet-seats.—6,855, G. Higham, Manufacture of Portland Cement.—7,035, J. Jones, Safety Appliances for Windows, &c.

RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

JUNE 9.—By G. A. WILKINSON & SON.

Covent Garden—5, New-st., f., r. £60 p.a. £1,670

By ELLIOT, SON, & BOYTON.

Stratford—49, Forest-lane, f. 350

By C. & F. RUTLEY.

Searesbrook—8, Westfield-villas, f., r. £50 p.a. .. 685
Sylvan-rd.—A plot of f. land 230

By VENTOM, BULL, & COOPER.

Bloomsbury—The lease and goodwill of 1 and 3, Silver-st., u.t. 22 yrs., r. £130 250

By W. H. KEER.

Regent's-pk.—53, Upper Gloucester-pl., u.t. 31 yrs., no g.r., r. £80 740
Notting Hill—90, Lansdowne-rd., u.t. 60 yrs., g.r. £17. 2s., r. £67. 2s. 540

By W. HOLCOMBE.

Maida Vale—Portsdown-rd., l.g.r. of £50, u.t. 58½ yrs., g.r. £2 945
Oxford-st.—129, Great Titchfield-st., u.t. 20 yrs., g.r. £30, r. £75 430
Hampstead-rd.—2, Eversholt-st., u.t. 53 yrs., g.r. £6. 6s., r. £70 725
St. John's Wood—13, Clifton-hill, u.t. 47 yrs., g.r. £10. 10s., r. £60 400

By IRELAND & BARKER.

Streatham — 73, Barron-rd., u.t. 88 yrs., g.r. £9. 9s., r. £45 470

By FAREBROTHER, ELLIS, & Co.

Hayes, near — "Yeading Green Farm," and 65a. 0r. 7p., f., r. £150 3,620
Marylebone—4, John-st. North, f. 500
57, Bell-st., f., r. £45 p.a. 750

JUNE 10.—By THEO. WADE & Co.

Notting-hill—53, St. Charles-sq., f., r. £90 1,200

By WAGSTAFF & WARMAN.

Stratford—45 & 47, Rosher-rd., u.t. 56 yrs., g.r. £6, r. £39 250
Fleet-st.—10, Red Lion-ct., the lease of, u.t. 17 yrs 300

By FURBER, PRICE, & FURBER.

Dalston—1, Stoke Newington-rd., u.t. 40 yrs., g.r. £16, r. £90 1,000
Hyde-pk.—The lease of 24 Hyde-pk.-pl., u.t. 10 yrs. 225
Hampstead-rd.—6, Eversholt-rd., u.t. 53 yrs., g.r. £6. 6s., r. £70 p.a. 570
72, Adelaide-road, u.t. 55 yrs., g.r. £5 800

By B. BROWN.

Poplar—211, East India-rd., f., r. £50 p.a. 700
253 and 255, East India-rd., f., r. £80 p.a. 1,100

By ELLIS & SON.

Cubitt Town—"The Newcastle Arms," u.t. 51 yrs., g.r. £10 2,350
Manchester-rd.—L.g.r. of £7. 11s., u.t. 60 yrs... 110

By DEBENHAM, TEWSON, & Co.

St. Alban's, Hillside-rd.—The residence "Ramleh" 1,110
Lambeth—F.g.r. of £40 p.a., with reversion in 60 yrs. 990
Hammersmith—F.g.r. of £20 p.a., with reversion in 55 yrs. 590
F.g.r. of £42 p.a., with reversion in 55 yrs. 1,050
F.g.r. of £63 p.a., with reversion in 55 yrs. 1,720
Albion-gardens—L.g.r. of £17 p.a., u.t. 55 yrs .. 380
117, King-street, c., r. £80 p.a. 1,550
Shepherd's Bush.—165, Goldhawk-rd., u.t. 53 yrs., g.r. £5, r. £52. 10s. 650
Kensington, Hansard Mews—F.g.r. of £42, with reversion in 71 yrs. 1,050
F.g.r. of £44, with reversion in 71 yrs. 1,000
Russell Mews—F.g.r. of £30, with reversion in 71 yrs. 690
Acton, King-street—F.g.r. of £23, with reversion in 62 yrs. 440
Surbiton-hill—"Lambeth House," f. 5,000

JUNE 11.—By M. HUBBARD.

Regent's-pk.—88, Albany-st., u.t. 35 yrs., g.r. £13. 10s., r. £67 615
Camden Town—25, Rochester-rd., u.t. 53 yrs., g.r. £5, r. £52. 10s. p.a. 450
2, Wilmot-pl., u.t. 33 yrs, g.r. £2. 2s., r. £50 .. 340

By A. SAVILL & SON.

Gray's-inn-road—1 to 9, Arthur-st., u.t. 32 yrs., g.r. £45, r. £405 3,200

By A. E. CHRISTY.

Dorking, South-st.—"Mount House," f. 580

By W. H. COLLBRAN.

Cranleigh, Surrey—"Oaklands," and 9a. 2r. 30p., f. 3,350

By FARREBROTHER, ELLIS, & Co.

Strand—No. 32, Essex-st., f., area 1,740 ft. 4,000
Southgate—13, Broomfield-villas, f., r. £36 p.a.... 450
The f. house "Shirley Villa," r. £26. 10s. p.a... 300
18 to 21, Oak-cottages, f., r. £140 p.a. 900

JUNE 12.—By G. HEAD & Co.

St. John's Wood—77 to 83 (odd), Carlton-hill, u.t. 40 yrs., g.r. £4. 4s., r. £280 2,570

By GLASIER & SONS.

Crowborough—"The Firs," and 5a. 2r. 36p., copyhold 1,250
Brixton—70, Barrington-rd., u.t. 33 yrs., g.r. £1. 17s., r. £42 360

By E. STEMSON.

Southwark—9, Merrick-sq., u.t. 35 yrs., g.r. £5. 5s., r. £40 360
Walworth—51, Gurnsey-st., u.t. 53 yrs., g.r. £5. 5s., r. £35 p.a. 320
Bermondsey—133, 135, and 137, Weston-st., u.t. 24 yrs., g.r. £9, r. £106 650
16, 17, 18, and 32, Weston-pl., u.t. 24 yrs., g.r. £4, r. £97. 10s. 500
Stockwell—96 and 112, Hubert-grove, u.t. 89 yrs., g.r. £13, r. £64 570
Hackney—31, St. John's Church-rd., u.t. 80 yrs., g.r. £6, r. £36 320

By C. & H. WHITE.

Kennington—61, Cook's-rd., u.t. 60 yrs., g.r. £4, r. £30 360
Lewisham—72, Algernon-rd., u.t. 80 yrs., g.r. £4.. 270

By NEWDON & HARDING.

Clapton—69, Blurton-rd., f., r. £39 p.a. £325
Haggerston—155, Haggerston-rd., f., r. £24. 14s.. 230
111, Haggerston-rd., u.t. 29 yrs., g.r. £3, r. £24 205
Kingsland—88 and 90, Clarissa-st., u.t. 29 yrs., g.r. £6 320
Dalston—27, Holly-st., u.t. 31 yrs., g.r. £4, r. £38 305
De Beauvoir Town—136, Tottenham-rd., u.t. 32 yrs., g.r. £4 210
Hackney—29a and 30, Florefield-rd., u.t. 66 yrs., g.r. £4, r. £53. 18s. 360
31 to 36, Florefield-rd., u.t. 66 yrs., g.r. £24 755
Clapton—7 and 9, Millington-st., u.t. 9 yrs., g.r. £5 50
King's Cross—192, York-rd., u.t. 19 yrs., g.r. £6. 16s., r. £36 70
Hall End, Beds.—F. detached cottage, and 1a. 0r. 22p., r. £16 300
Leytonstone—10, Barnett's-ter., u.t. 78 yrs., g.r. £4, r. £20 190
Holloway—14, St. Peter's-rd., u.t. 55 yrs., g.r. £8. 8s. 325

By C. C. & T. MOORE.

Bethnal Green—103, 105, and 107, Green-st., and 17, 18, and 19, North-st., f., r. £144. 14s..... 1,450
Stepney Green—24 to 30, Hannibal-rd., u.t. 28 yrs., g.r. £29. 8s. 470
1 to 6, and 13 to 16, Hannibal-rd., u.t. 28 yrs., g.r. £45. 12s. 1,620
Limehouse—45, Rhodeswell-rd., u.t. 65 yrs., g.r. £3 310
132, Rhodeswell-rd., u.t. 22 yrs., g.r. £5..... 350
1 to 5, Brookes-ter., u.t. 66 yrs., g.r. £16 1,090
Bow—13, St. Leonard's-ter., u.t. 63 yrs., g.r. £6. 10s. 415

By D. WATNEY & SONS.

Twyford, near—A residence called "Woodlands," c. 280
Enclosures of land, 6a. 0r. 21p., c. and f. 440
Enclosures of meadow land, 24a. 1r. 8p. 1,100
Cranleigh, near—"Waterbridge Farm," and 49a. 0r. 22p., f. 840
The residence known as "Alibasters," and 50a. 3r. 25p., f. 1,100
The residence known as "White's," and 22a. 3r. 19p., f. 1,200
Several farms and wood lands, containing 517a. 2r. 7p., f. 5,000
The "Pephurst Wood Estate" of 93a. 0r. 15p., f. 800
Enclosures of meadow and wood land and beer-house, 17a. 0r. 11p. 1,110
Horley, Surrey—"The Wrays Estate," 100a. 0r. 30p. 6,100

By PRICKETT & VENABLES.

High Barnet—120, 122, and 124, High-st., f., r. £140 3,000
Enfield—Enclosures of land, 48a. 3r. 25 p., f. 1,580
Palmer's Green—F.g.r. of £110, reveralon in 54 yrs. 2,250
Highgate—44, High-st., f., r. £40 500
Islington—162, Barnsbury-rd., f., r. £45..... 490
Islington—127, Cloudesley-rd., f., r. £30 320
Drury-lane—2, Clare-ct., f. 530
City of London—16 and 17, Great St. Helen's, f., r. £280..... 7,100

JUNE 13.—By RICH BROS.

Wandsworth, Melrose-rd. —F.g.r. of £16, with reversion in 68 yrs. 400
Wimbledon-pk.-rd.—F.g.r. of £20, with reversion in 71 yrs. 580

By BAKER & SONS.

Upper Norwood—53 and 55, Central Hill, f., r. £52 p.a. 930
Highgate—17, 21, and 23, Woodsome-rd., u.t. 72 yrs., g.r. £20..... 900

By GRAVES & SON.

Notting Hill—5, Bonchurch-rd., u.t., 76 yrs., g.r. £8. 10s., r. £30..... 250

By R. REID.

Bayswater, Queen's-rd., &c.—L.g.r. of £66, u.t. 58 yrs., at g.r. £2 1,220
Hoxton, Broke-rd., &c.—L.g.r. of £30, u.t. 55 yrs., at a peppercorn rent 605
Holborn—16, Featherstone-buildings, f., r. £80 p.a. 1,615
Hampstead-rd.—No. 213, freehold 795

By DREW & SON.

Westminster—45, Wood-st., f., r. £52 10s. p.a. .. 490
Harlesden—54, High-st., u.t. 80 yrs., g.r. £5, r. £60 p.a. 920

By DEBENHAM, TEWSON, & Co.

New Bond-st., No. 4.—Profit rental of £200, u.t. 12 yrs. 1,280
St. John's Wood—20, Blenheim-rd., u.t. 47 yrs., no g.r. 720
Forest Hill—No. 2, The Glen, u.t. 70 yrs., g.r. £16, r. £55 p.a. 300

By PRICKETT & VENABLES.

Camden-rd.—No. 253, u.t. 55 yrs., g.r. £7. 10s. .. 2,200
No. 255, Camden-rd., u.t. 55 yrs., g.r. £7. 10s., r. £120..... 1,000
Barnet—"Eastwood House" and 1a. 0r. 24p., u.t. 70 yrs., g.r. £10 800
City of London—18, Hamsell-st. and 22, Well-st., u.t. 40 yrs., g.r. £115, r. £420 3,200
Dulwich, Alleyn Pk.—The residence, "Moorfield," u.t. 57 yrs., g.r. £30, r. £160 1,150
"Carlton Lodge" and "Tudor Lodge," u.t. 66 yrs., g.r. £20. 12s. 6d. 380
1 to 6, Alleyn-ter., u.t. 66 yrs., g.r. £18. 6s., r. £241..... 1,730
Euston-rd., Melton-st., &c.—L.g.r. of £320. 15s., u.t. 20 yrs., g.r. £70 2,440

By ROGERS, CHAPMAN, & THOMAS.

Pimlico—23 and 25, Tachbrooke-st., u.t. 24 yrs., g.r. £14 1,100
Vauxhall Bridge-rd.—No. 179 and 181, u.t. 34 yrs., g.r. £10, r. £34 p.a. 700
Battersea—49, Warriner-gardens, u.t. 90 yrs., g.r. £6, r. £34 230

[*Contractions used in these lists.*—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; l.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; e.r. for estimated rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; yd. for yard, &c.]

MEETINGS.

SATURDAY, JUNE 21.

St. Paul's Ecclesiological Society.—Visit to Waltham Abbey. Train leaves Liverpool-street at 2.50 p.m.

Liverpool Engineering Society.—Visit to the Thirlmere Aqueduct.

MONDAY, JUNE 23.

Victoria Institute.—Mr. Hormuzd Rassam on "The Sites in the East earliest mentioned in Holy Writ." 8 p.m.

Junior Engineering Society.—Visit to Messrs. Allen Scott & Co.'s Printing Works, Bouverie-street, E.C. 5.30 p.m.

WEDNESDAY, JUNE 25.

Artists' Benevolent Fund.—Annual Dinner, Freemasons' Hall, Sir Richard Temple presiding. 7 p.m.

THURSDAY, JUNE 26.

Association of Municipal and Sanitary Engineers and Surveyors.—Annual meeting to be held at Liverpool. Address by the President (Mr. H. P. Boulnois, City Engineer of Liverpool); and Papers on "The London Sewage Question," by Mr. Crawford Barlow; "The Mersey," by Mr. W. Spinks; "The Maintenance of Main Roads," by Mr. E. P. Hooley; and "Traction Engines and their Effect upon Roads and Buildings," by Mr. J. H. Burton.

FRIDAY, JUNE 27.

Association of Municipal and Sanitary Engineers and Surveyors.—Annual Meeting (continued). Visit to the Docks, Abattoirs at Birkenhead, Mersey Tunnel, &c.

SATURDAY, JUNE 28.

Association of Municipal and Sanitary Engineers and Surveyors.—Annual Meeting (continued). Visits to Salt Water Baths, Pierhead; Electric Lighting Station, Highfield-street; Liverpool Hydraulic Power Company's Athol-street Pumping Station; St. George's Hall; New Royal Infirmary (work in progress); and "Walker" Engineering Laboratories.

Miscellanea.

Enforcement of Building By-Laws at Hornsey.—Some of the evening papers last week described an "extraordinary scene at Hornsey;" but inasmuch as the evening journalist is nothing if not sensational we were not disposed to refer to the matter in our own columns. The facts were, however, substantially as stated, as will be seen by the following extract from the Local Board's Plans Committee's Report, sent to us by Mr. De Courcy Meade, the Surveyor to the Board:—

"Your Surveyor reports that the builder ....., on receipt of the Board's decision on Monday, June 2, to remove the portions of two houses in ..... road, instead of availing himself of the opportunity of removing the small portions of the buildings which had been erected at the time they were condemned, continued with the erection of the buildings with more than ordinary despatch. Your Surveyor, therefore, acting on the advice of counsel, proceeded to remove the buildings on Monday, the 9th inst. The police authorities were communicated with, and sent some constables to ensure there being no breach of the peace between the builder's men and those employed by the Board for the removal of the buildings. The pulling-down was executed in a business-like and orderly manner, and was completed on the following day, viz.: the 10th inst. The Surveyor reports further, that the adjoining houses, erected by the same builder, are in contravention of By-law 24, and states that he has this day served him with the necessary notice to remove the defective work."

The By-laws under which this action has been taken are, as may be imagined, somewhat severe in their terms, but they are deemed by the authorities to be none too stringent to meet the cases of jerry-building which at times come under their notice.

The Association of Municipal and Sanitary Engineers and Surveyors will hold their annual meeting at Liverpool, on Thursday, Friday, and Saturday next, June 26, 27, and 28. After the adoption of the annual report, the presentation of premiums, and the transaction of general business, the President, Mr. H. P. Boulnois, City Engineer of Liverpool, will deliver his address. This will be followed by papers on "The London Sewage Question," by Mr. Crawford Barlow, B.A., M.Inst.C.E.; "The Mersey," by Mr. W. Spinks, Assoc.-M.Inst.C.E.; "The County Management and Maintenance of Main Roads," by E. P. Hooley, Assoc.-M.Inst. C.E.; and "Traction Engines and their Effect on Roads and Buildings," by J. H. Burton. The annual dinner will take place at Eberle's Restaurant, Eberle-street, in the evening. On the second day, Friday, June 27, there will be visits to the Docks, to the abattoirs at Birkenhead, and to the Mersey Tunnel; arrangements having been kindly made by Sir Douglas Fox, the Engineer, for an inspection of this work. On Saturday, June 28, the members will visit the Salt Water Baths, Pierhead; the Electric Lighting Station, Highfield-street; the Liverpool Hydraulic Power Company's Athol-street Pumping-station, passing Artisans' and Labourers' Dwellings, Camena-street, and Juvenal-street; St. George's Hall; passing the Walker Art Gallery, the Free Library and Museum; the New Royal Infirmary (work in progress); and the "Walker" Engineering Laboratories; and, if time permits, will drive round Sefton Park.

Civil and Mechanical Engineers' Society. — The members of this Society, under the guidance of the President, Mr. Henry Adams, visited the Broad-street Goods Station of the London and North-Western Railway Company on the 12th inst. They were received by Mr. David Stevenson, and shown round by Mr. Hignett, of the Locomotive Department, and Mr. Carston, of the Goods Department. This station, being arranged in the heart of the City of London, was constructed under some difficulty. It extends beneath the whole of the Broad-street Passenger Station, and some distance beyond. On this side the goods are received for transmission by rail; they are sorted out and loaded into trucks, which are then raised to the upper level and made up into trains. There is a large open yard, and on one side a warehouse of several floors, where the goods arriving by rail are received for distribution. A few of the trucks run over a viaduct into the warehouse upon one level, but the majority have to be brought from and returned to the upper level by means of 14-ton hydraulic wagon hoists working at the rate of fifty lifts per hour. These hoists, made by Sir William Armstrong & Co., are ingeniously arranged with a constant pressure cylinder alongside the vertical lifting cylinder, but with a smaller diameter, in order to nearly counterbalance the heavy platform upon which the trucks are carried, so that no water is expended in lifting the dead-weight, being simply forced back into the accumulator when the lift descends. There are five pumping-engines of 80 effective horse-power, each supplying the water pressure of 730 lb. per square inch, these being until recently the standard pattern adopted over the whole of the London and North-Western Railway system, so that all parts might be interchangeable. They are automatically regulated by the rise and fall of the accumulators, the supply of power being thus exactly equal to the demand, and determined by it. The capstans, cranes, jiggers, and lifts were all seen in work, and the various details of the mechanism were fully explained to the visitors. Before leaving, a hearty vote of thanks was passed to the officials of the Company, not forgetting the veteran Biggs, under whose charge the machinery has been from its first inception, twenty-two years ago.

Sanitary Congress at Brighton.—The following arrangements have been made by the Sanitary Institute for the Congress and Exhibition at Brighton, which commences August 25:—President, Sir Thomas Crawford, K.C.B., M.D.; Hon. Treasurer, the Mayor of Brighton; Hon. Secretary, A. Newsholme, M.D., D.P.H.; President, Section I., "Sanitary Science and Preventive Medicine," George Vivian Poore, M.D., F.R.C.P.; President, Section II., "Engineering and Architecture," Professor Roger Smith, F.R.I.B.A.; President, Section III., "Chemistry, Meteorology, and Geology," Mr. Wm. Topley, F.R.S., F.G.S.; Conference of Medical Officers of Health, President, A. Newsholme, M.D., D.Ph., M.O.H.; Conference of Inspectors of Nuisances, A. Carpenter, M.D., M.R.C.P. (President). The arrangements also include a *conversazione* in the Pavilion Building, a lecture to the Congress by W. H. Preece, F.R.S., and excursions, and an address to the working-classes by B. W. Richardson, M.D., LL.D., F.R.S. The meetings of the Congress and Exhibition will be held in the Pavilion Buildings.

The Claybury Asylum, near Woodford. On the 12th inst., Lord Rosebery, Chairman of the London County Council, laid the foundation-stone of the new pauper lunatic asylum for London. We published a view, plan, and description of this extensive building in our issue for November 23 last year. Mr. G. T. Hine is the architect, and Messrs. Gabbutt & Co., of Liverpool, are the contractors, the amount of their contract being 337,945*l.* Accommodation is to be provided for 2,000 inmates. Lord Rosebery incidentally mentioned that pauper lunatics in London were now increasing at the rate of 400 a year. If that rate were maintained they would require to erect another such "palace of desolation" every five years!

New Central Telegraph Factory, Coldbath-fields.—We understand that the tender of Messrs. Treasure & Son, of Shrewsbury and London, has been accepted for the Government Telegraph Factories and Water Tower, on part of the site of Coldbath-fields Prison. The architect is Mr. Henry Tanner, of H.M. Office of Works.

A Discussion on a Certificate.—At a recent meeting of the Chelmsford Town Council, a certificate was presented from the Borough Surveyor (Mr. C. Pertwee) for the payment of 800*l.* to Messrs. Longley, the contractors for the new water tower, but it was decided to defer payment until the receipt of further particulars from the Surveyor as to the amount still due to the contractors. At a subsequent meeting of the Town Council, the Surveyor wrote:—"With regard to my certificate for 800*l.* to be paid to Messrs. Longley & Co., on account of their contract, while I am willing to afford any explanation to the Council and the contractors, my position is such under the contract that I decline to receive dictation with regard to my action from either party. The works are practically completed, but unfortunately I was unable personally to examine and report before leaving home. The payments as set forth in the contract amount to 3,818*l.* 5s. during the progress of the works, and 763*l.* 13s. within three months of completion, making in all 4,581*l.* 18s., of which some 3,500*l.* has been already certified for, leaving 1,081*l.* 13s. now due, from which I have deducted 281*l.* 13s., and this, together with 509*l.* 2s., payable six months hence, will, in my judgment, amply secure the interests of the Council and meet all contingencies and penalties arising out of the contract, or which could be recovered from the contractors." Alderman Dutton proposed that the certificate be at once honoured, and after some discussion it was decided by 7 votes against 4 to pay the 800*l.*

Classes and Examinations for Plumbers.—The steady progress made by the plumbing classes is one of the most satisfactory features of the movement for the registration and training of plumbers. Among the latest and most successful classes is that established last Session at Greenock in connexion with the District Council for Glasgow and the West of Scotland. This class, which commenced in October last, and has just terminated for the Session, was held at the Mearn's-street Public School. A report which the teacher of the class has furnished to the District Council shows that out of the total number of thirty-six students, the average attendance was thirty. The happiest results have been visible in the greater intelligence manifested by the rising generation of plumbers in executing their work. During the preceding Session many of the students in the Greenock class were given elementary instruction in the plumbing class connected with the Glasgow Technical College, and they have, therefore, received advanced instruction in the Greenock class during last Session. The result of the examinations held at the close of the Session was eminently satisfactory, the students taking the second and fifth prizes, out of five prizes with medals offered to plumbing students in the United Kingdom.

Sanitary Appliances and Builders' Ironmongery. — From Messrs. Young & Marten, of the Caledonian Works, Stratford, we have recently received an illustrated catalogue and price-list of baths, lavatories, water-closets, urinals, sinks, and countless other appliances and fittings, including plumbers' brass-work, ventilators, &c. Accompanying this catalogue was Messrs. Young & Marten's illustrated "Tariff No. 13," illustrated with selections of stock articles in the shape of stoves, gas-fittings, chimney-pieces, and builders' ironmongery, of which the wholesale trade prices are quoted. The two catalogues are very conveniently arranged, and will be found to include fittings to suit all tastes and requirements. We may specially call attention to the "steamless and noiseless" baths and lavatories which are figured in the first-named catalogue, and which are excellent in every respect. The two catalogues taken together form a comprehensive whole, and may be advantageously studied by architects and builders, and those who, being "about to build," desire to count the cost.

Nineteenth Century Art Society.—We are asked to mention that the One Hundred Pound Prize of the Art Union of London has been selected from the Nineteenth Century Art Society's Exhibition in Conduit-street. The work is by Mr. Hamilton Marr.

New Baths for St. George's, Hanover-square.—In our account of this new building last week (see p. 432), we inadvertently omitted to say that the clerk of the works was Mr. John Herbert, C.W.A.

Tectolith.—In mentioning this new material in a "Note" in our last issue (page 428) we observed that while high results were said to have been obtained from it at Mr. Kirkaldy's testing works, the results of these tests had not been forwarded to us. We have since received the papers of the tests referred to, and we give the following extracts from them:—

Pieces cut out of plates ¾ in. thick and 1 mitre square.

Test number.	Mean thickness. inch.		Span. inches.	Breaking load. lbs.	lbs.
2,811	·85		12	437	
2,812	·76	·78	do.	379	396
2,813	·73		do.	371	

Pieces cut out of plates ½ in. thick, 1 mitre square.

Test number.	Mean thickness. inch.		Span. inches.	Breaking load. lbs.	lbs.
2,835	·51		12	213	
2,836	·52	·53	do.	200	221
2,837	·55		do.	249	

PRICES CURRENT OF MATERIALS.

TIMBER.	£.	s.	d.	£.	s.	d.
Greenheart, B.G. ....ton	6	10	0	7	10	0
Teak, E.I. ....load	11	0	0	14	0	0
Sequoia, U.S. ....foot cube	0	2	3	0	3	0
Ash, Canada ....load	3	0	0	4	10	0
Birch ,, ...	3	0	0	5	0	0
Elm ,, ...	3	10	0	4	15	0
Fir, Dantsic, &c.	1	15	0	3	10	0
Oak ,, ...	2	10	0	4	10	0
Canada	5	10	0	6	10	0
Pine, Canada red	2	10	0	3	10	0
,, yellow	2	0	0	5	5	0
Lath, Dantsic ....fathom	5	0	0	6	0	0
St. Petersburg	5	0	0	7	0	0
Wainscot, Riga, &c. ....log	0	0	0	0	0	0
Deals, Finland, 2nd and 1st. std. 100	7	15	0	10	0	0
,, ,, 4th and 3rd	7	0	0	7	10	0
Riga	6	0	0	8	10	0
St. Petersburg, 1st yellow	9	10	0	14	10	0
,, 2nd ,, ...	7	10	0	9	0	0
,, white	7	0	0	10	0	0
Swedish	7	0	0	15	0	0
White Sea	8	0	0	17	0	0
Canada, Pine, 1st	15	0	0	28	0	0
,, ,, 2nd	10	0	0	16	10	0
,, ,, 3rd, &c.	7	0	0	10	0	0
,, Spruce, 1st	8	15	0	11	0	0
,, ,, 3rd and 2nd ..	6	10	0	8	10	0
New Brunswick, &c.	6	0	0	8	0	0
Battens, all kinds	5	0	0	16	0	0
Flooring Boards, sq., 1 in., prepared, First	0	10	0	0	14	0
Second	0	8	0	0	10	6
Other qualities	0	6	0	0	7	9
Cedar, Cuba ....foot	0	0	4	0	0	4½
Honduras, &c.	0	0	4	0	0	4½
Mahogany, Cuba	0	0	4½	0	0	6½
St. Domingo, cargo average ..	0	0	5	0	0	6½
Mexican ,, ...	0	0	4½	0	0	5½
Tobasco ,, ...	0	0	5½	0	0	6½
Honduras ,, ...	0	0	5	0	0	6½
Box, Turkey ....ton	5	0	0	12	0	0
Rose, Rio	14	0	0	19	0	0
Bahia	13	0	0	18	0	0
Satin, St. Domingo....foot	0	0	6	0	1	3
Porto Rico	0	0	9	0	1	3
Walnut, Italian	0	0	4	0	0	7
METALS.						
IRON—Bar, Welsh, in London tn	6	17	6	8	0	0
,, at works in Wales	6	10	0	7	0	0
,, Staffordshire, in London..	8	0	0	8	10	0
COPPER—British, cake and ingot	63	0	0	63	10	0
Best selected	65	0	0	66	0	0
Sheets, strong	71	0	0	72	0	0
Chili, bars	59	12	6	0	0	0
YELLOW METAL....lb.	0	0	5½	0	0	0
LEAD—Pig, Spanish ....ton	13	5	0	0	0	0
English, com. brands	13	7	6	0	0	0
Sheet, English, 3 lbs. per square foot and upwards....	15	0	0	0	0	0
Pipe	15	10	0	0	0	0
TIN—						
Straits	96	10	0	0	0	0
Australian	96	15	0	0	0	0
English Ingots	100	0	0	0	0	0
OILS.						
Linseed ....ton	24	7	6	24	15	0
Cocoanut, Cochin	32	10	0	0	0	0
Cocoanut, Ceylon	27	0	0	0	0	0
Palm, Lagos	26	0	0	0	0	0
Rapeseed, English pale	31	5	0	31	10	0
,, brown	29	15	0	0	0	0
Cottonseed, refined	22	10	0	0	0	0
Tallow and Oleine	21	0	0	40	0	0
Lubricating, U.S.	5	10	0	6	0	0
,, refined	7	0	0	13	0	0
TAR—Stockholm....barrel	1	4	0	0	0	0
Archangel	0	15	0	0	0	0

TENDERS.

[Communications for insertion under this heading must reach us *not later than* 12 *noon on Thursdays.*]

BARKING. — For rebuilding three shops at the Broadway, Barking, for Messrs. Pelling & Hart. Mr. Edward Clark, architect, 432, West Strand, W.C.:—

D. Argent, Barking	£3,371 0 0
Patman & Fotheringham	3,140 0 0
T. L. Green	3,070 0 0
Grover & Co.	3,050 0 0
G. Birt, Barking	3,049 0 0
W. J. Adcock, Dover	2,907 0 0
J. Smith, Barking	2,740 0 0

CONTRACTS AND PUBLIC APPOINTMENTS.

Epitome of Advertisements in this Number.

CONTRACTS.

Nature of Work or Materials.	By whom Required.	Architect, Surveyor, or Engineer.	Tenders to be delivered.	Page.
Cottage Homes	Pontypridd Union	Seward & Thomas	June 24th	ii.
Painting, Repairs, &c., at Infirmary, &c.	Chelsea Guardians	*Official*	do.	ii.
Widening Line, Moulsford and Didcot	G. W. R. Co.	do.	June 25th	ii.
Bridge, &c., near Brynmenin	do.	do.	do.	ii.
Manhole Covers, Gulley Gratings, &c.	Hackney Bd. of Works	Jas. Lovegrove	do.	ii.
Sewerage and Sewage Disposal Works	Epping R.S.A.	E. Egan	June 26th	ii.
Vagrant Ward	Amersham Union	*Official*	June 28th	ii.
Erection of Grain Warehouses, Cardiff		Jas. Donaldson	June 30th	ii.
Fire Escapes	Hornsey Local Board	*Official*	do.	xiii.
Broken Granite and Flints	Kingston-on-Thames Corporation		do.	xiv.
Roadmaking Works	Bromley Local Board		do.	xiii.
Sewer Extension	do.		do.	xiii.
Broken Granite	Brentford Local Board	J. H. Strachan	do.	xiii.
Concreting Lake, and Public Conveniences, Ravenscourt-park	London County Council	*Official*	do.	xiv.
Renovating Venetian Blinds, Western Fever Hospital	Met. Asylums Board	do.	July 2nd	xiii.
Making-up Roads, &c.	Hornsey Local Board	T. de Courcy Meade, C.E.	do.	xiii.
Hot-Water Heating, Shire Hall, Carmarthen	Joint Standing Com.	Daniel Phillips	July 5th	ii.
Alterations, Medical Officer's House, Hanwell	Cent. Lond. Sch. Dist.	H. Jarvis & Son	July 7th	xiv.
Additions, &c., at Vestry Hall	St. Mary (Islington) Vestry	*Official*	July 8th	xiii.
Intercepting Sewer, &c.	Manchester Corporation	J. Allison	July 15th	xiv.
Chapel Keeper's Residence, Walsall		S. Loxton	Not stated	xiv.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Applications to be in.	Page.
Surveyor	Leathersellers' Compy	£300	June 25th	xviii.
Clerk of the Works	Friern Barnet L. B.	£2. 2s. per week	June 27th	xviii.

BERKHAMPSTEAD.—For the erection of a villa residence at Berkhampstead, for Mr. S. Rowland Timson. Mr. James F. Goodey, architect, 2, Victoria-chambers, Colchester :—

C. Miskin, St. Alban's	£2,318 0 0
H. & J. Mathews, Berkhampstead	2,072 0 0
W. Smith, Tring	1,878 0 0
Co-operative Builders, Brixton	1,790 0 0
G. Dobson, Colchester	1,748 0 0
F. Dupont, Colchester (accepted)	1,672 0 0

BIRMINGHAM.—For erecting new Ear and Throat Hospital, Edmund-street, Birmingham, for the Building Committee. Messrs. Jethro A. Cossins & Peacock, architects, 83, Colmore-row, Birmingham. Quantities by Mr. George Kenwrick :—

Builder.		Extra for facings.	Total.
S. Surman & Sons	£5,785	£117	£5,902
J. Moffat	5,750	112	5,862
H. Lovatt	5,564	20	5,584
S. Taylor	5,226	54	5,280
Thos. Smith	5,199	50	5,249
Jno. Bowen	5,160	60	5,220
W. Sapcote & Sons	5,088	50	5,138
J. Barnsley & Sons	4,988	45	5,033
W. & J. Webb	4,976	66	5,042
J. Smith & Sons	4,965	45	5,010
Gowing & Ingram*	4,769	60	4,829

* Accepted subject to modification in the works.

BOURNEMOUTH. — For proposed alterations to Linden Vale, Christchurch-road, Bournemouth, for Mr. J. T. Exton. Messrs. Lawson & Donkin, architects and surveyors, Bournemouth. Quantities supplied :—

McWilliam & Son	£1,775 0 0
W. Hoare	1,750 0 0
George & Harding	1,650 0 0
F. Hoare & Son	1,645 0 0
Barrow & Entwistle	1,642 0 0
Kingerlee	1,625 0 0
J. White	1,550 0 0
G. Shears (accepted)	1,500 0 0

BOURNEMOUTH. — For proposed stable, Denbigh Lodge, for Mr. A. Jones. Messrs. Lawson & Donkin, architects, Bournemouth :—

F. Hoare & Son	£497 0 0
Barrow & Entwistle	495 0 0
Scott	451 0 0
Rigler & Crane	450 0 0
Lucas (accepted)	445 0 0

GARSTON (Liverpool).—For erecting a new Jubilee Church Institute at Garston, for the Rev. T. Oliver, D.D. Mr. H. T. Wakelam, Assoc.-M.Inst. C.E., architect, May Cottage, Allerton, Liverpool. Quantities supplied :—

Turner & Moss, Garston	£1,186 0 0
C. Burt, Wellington-road, Liverpool	1,168 0 0
J. Williams, Garston	1,065 0 0

LEYTONSTONE.—For building the "Red Lion Hotel" and four shops, High-road, Leytonstone, Essex. Mr. W. D. Church, architect, 12, South-place, Finsbury, E.C. Quantities by Messrs. C. Stanger & Son, 21, Finsbury-pavement, E.C. :—

	Hotel.	Shops.	Total.
J. Johnstone	£8,857	£3,500	£12,357
Killby & Gayford	8,700	3,600	12,300
J. Marsland	8,620	3,570	12,190
Harris & Wardrop	8,759	3,400	12,159
J. H. Johnson	8,681	3,391	12,082
F. & H. F. Higgs	8,560	3,510	12,070
Dove Bros.	8,550	3,449	11,999
Colls & Sons	8,549	3,410	11,959
Holloway Bros.	8,502	3,381	11,883
Holliday & Greenwood	8,437	3,363	11,800
W. Shurmur	8,199	3,366	11,565
W. Gladding	8,307	3,217	11,524
J. Morter & Son	8,130	3,257	11,387
J. Holland (accepted)	8,117	3,270	11,387

LONDON.—For proposed alterations to premises, Nine Elms-lane, S.W., for Messrs. Underwood & Co., Ltd. Mr. John A. J. Woodward, architect. Quantities supplied :—

Jones	£2,170 0 0
Higgs & Hill	1,874 0 0
Lathey Bros.	1,770 0 0
Ford	1,724 0 0
Lapthorne	1,695 0 0
Nightingale	1,648 0 0
Marsland	1,615 0 0
Hooper	1,611 0 0

LONDON.—For rebuilding the "Primrose," No. 53, Oxford-street, W., for Mr. W. G. Dickinson. Mr. Edward Clark, architect, 432, West Strand, W.C. :—

Drew & Cadman	£2,428 0 0
C. F. Kearley	2,318 0 0
E. Toms	2,221 0 0
Gould & Brand	2,146 0 0
Grover & Co.	2,106 0 0
Patman & Fotheringham	2,073 0 0
Spencer & Co.	2,050 0 0
T. L. Green	2,049 0 0
J. Anley (accepted)	2,046 0 0

LONDON.—For building warehouses, Golden-lane, E.C. Mr. C. J. C. Pawley, architect. Quantities by Mr. W. Walter Browne, 1, Boxworth-grove, Barnsbury, N. :—

J. R. Hunt, St. Paul's-road, Bow Common	£2,319 0 0
C. Simmons, Shepherd's Bush	2,161 0 0
R. and E. Evans, Peckham, S.E.	2,130 0 0
C. Blyton, 13, Garlick-hill	2,100 0 0
G. W. Ford, Vauxhall, E.C.	2,086 0 0
W. Neil, Bow, E.	2,081 0 0
G. Dobson, Colchester	1,998 0 0
Turtle & Appleton, Wandsworth	1,990 0 0
J. Budd, Wandsworth	1,966 0 0
Scharien & Co., Chelsea, S.W.	1,923 0 0
J. Mollett, New North-road, N.	1,898 0 0
R. Battley, 21, Old Kent-road	1,868 0 0

LONDON.—For pulling down and rebuilding Nos. 469 and 471, Bethnal Green-road, for Mr. Alderman Evans. Mr. Rowlandson, architect :—

A. Hood, Bethnal Green (accepted) £3,450 0 0

[No competition.]

LONDON.—For the erection of a detached house on "The Frognal Mansion Estate," Hampstead (exclusive of stoves, mantel-pieces, painted glass, mosaic, painting, papering, and decoration). No quantities supplied. Mr. James Neale, F.S.A., architect and surveyor, 10, Bloomsbury-square, London, W.C. :—

Allison & Foskett, Hampstead*.... £2,000 0 0

* Accepted.

LONDON. — For alterations and additions to the "Salisbury" Hotel, Fulham, S.W., for Mr. James H. Squires. Mr. H. I. Newton, architect, 49, Victoria-street, Westminster, S.W. :—

Kirk & Randall, Woolwich	£7,950 0 0
Patman & Fotheringham, Holborn	7,699 0 0
W. H. Smith, Walham Green	7,220 0 0
J. Higgs, Upper Park-lane	6,975 0 0
Turtle & Appleton, Clapham Junction	6,895 0 0
S. R. Lamble, Kentish Town	6,769 0 0
F. Mark, Edgware-road	6,715 0 0
S. Godden, Bryanston-square	6,700 0 0
H. Burman & Sons, Kennington-park	6,660 0 0
J. Beale, Westminster-bridge-road	5,999 0 0

LONDON.—For alterations, &c., to the "Lord Elgin" Hotel, Elgin-avenue, Maida-vale, W., for Messrs. Rolle & Co. Mr. H. I. Newton, architect, 49, Victoria-street, Westminster, S.W. :—

Todd, Hackney	£1,296 0 0
J. Tyerman, Walworth	1,259 0 0
S. Godden, Bryanston-square	1,225 0 0
F. Mark, Edgware-road	1,194 0 0
Leslie & Co., Kensington	1,079 0 0
J. Beale, Westminster Bridge-road	980 0 0

LONDON.—For alterations and additions to the "Red Lion," Walham Green, S.W., for Mr. James H. Squires. Mr. H. I. Newton, architect, 49, Victoria-street, Westminster, S.W. :—

Turtle & Appleton, Clapham Junction	£2,465 0 0
F. Mark, Edgware-road	2,385 0 0
S. R. Lamble, Kentish Town	2,358 0 0
H. Burman & Sons, Kennington Park	2,226 0 0
W. H. Smith, Walham Green	2,200 0 0
J. Beale, Westminster Bridge-road	1,999 0 0

LONDON.—For repairs and alterations to the Southwark Wesleyan Chapel, for the South London Wesleyan Mission. Mr. F. Boreham, architect, 75, Finsbury-pavement :—

Goodman	£1,419 0 0
Castle	1,370 0 0
Goad	1,349 0 0
Gregar	1,284 0 0
Holloway	1,262 0 0
Woodward	1,257 0 0
Cheesman	1,227 0 0
Battley	1,218 0 0
J. Anley	1,209 0 0

LONDON.—For pulling down and rebuilding the "William the Fourth" Tavern, Vauxhall Cross, for Messrs. Thorne. Messrs. Lee Bros. & Pain, architects. Quantities supplied :—

Roberts	£3,787 0 0
Gregory & Co.	3,687 0 0
Turtle & Appleton	3,485 0 0
Holloway Bros.	3,467 0 0
Lathey Bros.	3,435 0 0

LONDON.—For erecting a boundary-fence between Parliament Hill, Hampstead, and Lord Mansfield's property, in accordance with the terms of the Hampstead Heath Enlargement Act, for the London County Council :—

Wilson & Watson	£2,570 0 0
J. Wood	2,156 0 0
J. Stenning & Son	2,096 0 0
M. Marshall	2,057 0 0
T. Turner, Limited*	1,425 0 0

* Accepted conditionally.

LONDON.—For rebuilding premises Nos. 383, 385, 387, and 389, Commercial-road E., for Mr. G. Emery. Messrs. H. S. & C. A. Legg, architects, Mile End. Quantities by Mr. W. Hawker :—

Hearle & Son	£4,142 0 0
F. & F. J. Wood	3,993 0 0
Ashby & Horner	3,850 0 0
J. Morter	3,727 0 0
Allen & Son	3,648 0 0
Calnan & Co.	3,636 0 0
Wall Bros.	3,494 0 0
Coulsell Bros.	3,493 0 0
J. H. Johnson	3,443 0 0
Walker Bros.	3,378 0 0

LONDON.—For the erection of Christ Church Mission Church and caretaker's premises on the site of 612, Old Ford-road, Bow, E. Messrs. Walter A. Hills & Son, architects :—

Coleman	£1,850 0 0
Ward, Clarke, & Co.	1,795 0 0
Alexander	1,655 0 0
Salt	1,574 0 0
Bane, Stratford (accepted)	1,467 18 0

LONDON.—For repairs, &c., at the "Yorkshire Grey Tavern," 124, Great Suffolk-street, Southwark, for the directors of the Hatcham Brewery. Mr. W. F. Potter, architect :—

	Repairs. £	Under-pinning. £	Total. £
F. Dawes, Peckham	95 0 0	26 0 0	121 0 0
T. Channing, Islington	80 0 0	20 0 0	100 0 0
W. Wythe, Dalston*	68 0 0	28 0 0	96 0 0
R. Cook, Stonecutter-street, E.C.	68 0 0	0 0 0	0 0 0

* Accepted.

LONDON.—For alterations and additions to No. 16, Woodchurch-road, Priory-road, West Hampstead, N.W., for Mr. L. Wood. Mr. Walter J. Ebbetts, architect, Savoy House, 115, Strand, W.C. :—

Toten & Sons, South Kensington	£1,800 0 0
Macey & Sons, Strand	1,697 0 0
H. Baylis, Highbury	1,590 0 0
S. J. Scott, City	1,589 0 0
W. Smith, Camberwell	1,267 0 0
R. A. Yerbury, Kilburn (accepted)	1,251 0 0

LONDON.—For internal fittings, &c., for the "Anchor and Hope," Fore-street, E.C. Mr. C. J. C. Pawley, architect, 68, Victoria-street, Westminster :—

Geo. Stephenson	£1,875 0 0
Turtle & Appleton	1,595 0 0
F. Gill	1,397 0 0

LONDON.—For paving the Fulham-road with wood-paving from "The George," Walham Green, to Putney Bridge (20,050 square yds.) for the Vestry of Fulham. Mr. James P. Norrington, Surveyor :—

	For creosoted deal.	For Jarrah.
Improved Wood-Paving Co.*	£10,670	£16,790
Nowell & Robson	11,141	—
T. H. English	14,829	—

* Accepted.

LONDON.—For tar-paving two paths and forming three cinder paths, with gullies, &c., on Peckham Rye, for the London County Council :—

James Bowles	£426 0 0
Thomas Adams	206 0 0
W. R. Constable & Co.	255 10 0
J. F. Meston (accepted)	240 0 0

LONDON.—For making-up and paving Dolby-road, for the Vestry of Fulham. Mr. W. Sykes, New Streets Surveyor :—

Nash, Fulham	£351 0 0
Greenham, Hammersmith	328 0 0
Nowell & Robson, Kensington	323 0 0
Tomes & Wimpey, Hammersmith	313 0 0

LONDON.—For alterations and additions to the "Unicorn," Vivian-road, Old Ford, for Messrs. Beach Bros. :—

A. Hood, Bethnal Green (accepted).. £223 0 0
[No competition.]

LONDON.—For the erection of a public staircase, for Messrs. Francis & Son, Limited, Clapham Junction. Mr. J. Sawyer, architect, 63, Chancery-lane, W.C. :—

Carmichael,* Wandsworth-common £190 0 0
* Accepted.

PRESTATYN (North Wales).—For the erection of a house, "Bryn Hyfryd," for Mr. F. J. Smith, Chester. Mr. J. H. Burton, architect, Ashton-under-Lyne :—

J. Mayers, Chester	£802	5	0
Jones & Roberts, Rhyl	760	0	0
W. Williams, Rhyl	753	0	0
S. Foulkes & Sons, Rhyl	680	0	0
Griffiths Eames, Prestatyn	610	0	0
G. Wright & Sons, Chester*	580	0	0

* Accepted subject to certain alterations.

SHEERNESS.—For the erection of news-shop, &c., at Sheerness. Mr. James F. Goodey, architect, 2, Victoria Chambers, Colchester :—

Rollason Bros., Eastbourne	£6,972	0	0
E. F. Hughes, Sheerness	6,412	0	0
Grimwood & Son, Sudbury	5,692	0	0
G. Dobson, Colchester	5,638	0	0
L. Seager, Sittingbourne	5,575	0	0
F. Dupont, Colchester	5,575	0	0
Co-operative Builders, Burton-road, Brixton, S.W. (accepted)	5,368	0	0

SOUTHEND-ON-SEA.—For the erection of stables at Florence Villa, Southend, for Mr. T. Hudson. Mr. W. J. Wood, architect, 1, Finsbury-circus, E.C. :—

Darke & Son, Southend	£324	0	0
Dupont, Colchester	287	0	0
Woodhams, Southend (accepted)	287	0	0

SOUTHEND-ON-SEA.—For the erection of house and offices at Southend, for Mr. Walter J. Wood, architect. Quantities by Mr. Henry Bushell, 1, Finsbury-circus, E.C. :—

Baker & Wiseman, Southend	£362	10	0
Woodhams, Southend	797	0	0
Orfeur, Colchester	795	0	0
Dupont, Colchester	785	0	0
Edmunds, Poplar (accepted)	715	0	0

SOUTHEND-ON-SEA.—For repairs, &c., 15, Royal-terrace, Southend Essex, for Mr. J. Taylor. Mr. W. J. Wood, architect, 1, Finsbury-circus, E.C. :—

Woodhams, Southend (accepted).... £113 0 0
(Drainage, sanitary work, and fittings extra.)

SOUTHEND-ON-SEA.—For the erection of stables at "Ernesbrake," Southend, Essex, for Mr. J. Baldwin. Mr. W. J. Wood, architect, 1, Finsbury-circus, E.C. :—

Woodhams, Southend (accepted).... £298 0 0

TOTTENHAM.—For the erection of school buildings for 975 boys and infants, for the Tottenham School Board. Mr. Edward B. Ellis, architect. Quantities by Messrs. D Campbell & Son :—

Willmott & Sons	£11,439	0	0
Lewis	11,400	0	0
Longley	11,100	0	0
Linzell	11,000	0	0
Porter	10,795	0	0
Brass & Son	10,465	0	0
Stimson & Co.	10,460	0	0
Killby & Grayford	10,430	0	0
Watson	10,250	0	0
Chappell	10,247	0	0
Treasure & Son	10,220	0	0
Lawrence & Sons	9,997	0	0
Nightingale	9,980	0	0
Flew & Co.	9,970	0	0
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